API Well Number: 43015500030000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3
AMENDED REPORT ☑

APPLICATION FOR PERMIT TO DRILL

1. WELL NAME and NUMBER Tully 16-9-36D	
2. TYPE OF WORK DRILL NEW WELL ◉ REENTER P&A WELL ○ DEEPEN WELL ○	**3. FIELD OR WILDCAT** WILDCAT
4. TYPE OF WELL Oil Well Coalbed Methane Well: NO	**5. UNIT or COMMUNITIZATION AGREEMENT NAME**
6. NAME OF OPERATOR WHITING OIL & GAS CORPORATION	**7. OPERATOR PHONE** 303 390-4095
8. ADDRESS OF OPERATOR 1700 Broadway, Suite 2300, Denver, CO, 80290	**9. OPERATOR E-MAIL** scottw@whiting.com
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) ML-52222	**11. MINERAL OWNERSHIP** FEDERAL ○ INDIAN ○ STATE ◉ FEE ○
	12. SURFACE OWNERSHIP FEDERAL ○ INDIAN ○ STATE ○ FEE ◉
13. NAME OF SURFACE OWNER (if box 12 = 'fee') Mark Austin	**14. SURFACE OWNER PHONE (if box 12 = 'fee')** 435 653 2972
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee') PO Box 301, ,	**16. SURFACE OWNER E-MAIL (if box 12 = 'fee')**
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')	**18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS** YES ○ (Submit Commingling Application) NO ◉
	19. SLANT VERTICAL ◉ DIRECTIONAL ○ HORIZONTAL ○

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	860 FNL 856 FWL	NWNW	36	16.0 S	9.0 E	S
Top of Uppermost Producing Zone	860 FNL 856 FWL	NWNW	36	16.0 S	9.0 E	S
At Total Depth	860 FNL 856 FWL	NWNW	36	16.0 S	9.0 E	S

21. COUNTY EMERY	**22. DISTANCE TO NEAREST LEASE LINE (Feet)** 856	**23. NUMBER OF ACRES IN DRILLING UNIT** 640
	25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 5280	**26. PROPOSED DEPTH** MD: 10517 TVD: 10517
27. ELEVATION - GROUND LEVEL 5873	**28. BOND NUMBER** RLB 0004585	**29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE** Municipal Water from Elmo

Hole, Casing, and Cement Information

String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
SURF	17.5	13.375	0 - 2100	54.5	L-80 LT&C	9.0	Unknown	760	2.94	11.5
							Unknown	610	1.2	15.6
I1	13.375	9.625	0 - 6300	47.0	L-80 LT&C	9.4	Unknown	330	2.16	12.2
							Unknown	560	1.29	14.2
							Unknown	620	2.15	12.2
PROD	8.5	7	0 - 10517	29.0	L-80 LT&C	9.4	Unknown	425	2.15	12.2
							Unknown	570	1.29	14.2

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	☑ COMPLETE DRILLING PLAN
☑ AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)	☐ FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
☐ DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)	☑ TOPOGRAPHICAL MAP

NAME Larry Brown	**TITLE** CEP H&B Petroleum Consultants	**PHONE** 307 237-2310
SIGNATURE	**DATE** 08/27/2012	**EMAIL** ld_brown@bresnan.net

API NUMBER ASSIGNED
43015500030000

APPROVAL

Permit Manager

RECEIVED: October 15, 2012

Whiting Oil & Gas Corporation
Poison Spring_16-9-36D Drill Plan
Vertical – Manning Canyon Well
May 2, 2012

Summary:
The Poison Spring_16-9-36D well will be a vertical Manning Canyon well. The well will be drilled to 10,517' TD and 7" casing will be run and cemented.

Surface Location: 36-T16S-R9E
860' FNL 856' FWL
Emery County, Utah

DRILLING PROGRAM

1. ESTIMATED TOPS OF GEOLOGICAL MARKERS:

Ground Level 5,871' Estimated KB 5,893' (22')

Formation	MD	Lithology	Hazard
Mancos	Surface	SH-SS	
Ferron	1,092'	SS-COAL-SH	
Dakota	1,982'	SS-SI-SH	
Morrison	2,786'	SI-SH-SS	
Summerville	3,329'	SS-SH	
Curtis	3,688'	SS	
Entrada	3,909'	SS-SI	
Carmel	4,456'	SH-SS	
Navajo	5,075'	SS	Water, CO2
Kayenta	5,530'	SS	
Wingate	5,662'	SS	
Chinle	6,016'	SS-SH	
Moenkopi	6,337'	SS-SH-LS	
Kaibab	7,425'	SS-SH	
White Rim SS	7,602'	SS-SH	
Elephant Canyon	8,292'	LS-DOL	
Manning Canyon	9,664'	DOL-SS-SH	Gas
Humbug Fm	10,417'	LS-DOL	
TD	10,517'		

RECEIVED: August 23, 2012

2. PRESSURE CONTROL EQUIPMENT

A. Type: 13-5/8" 5,000 psi double gate hydraulic BOP with 13-5/8" 5,000 psi annular preventer with 5,000 psi Casinghead and 5,000 psi Tubinghead.

B. Testing Procedure:

The annular preventer will be pressure tested to 50% of stack rated working pressure for ten (10) minutes or until provisions of test are met, whichever is longer. The BOP, choke manifold, and related equipment will be pressure tested to approved BOP stack working pressure (if isolated from surface casing by a test plug) or to 70% of surface casing internal yield strength (if BOP is not isolated by a test plug). Pressure will be maintained for ten (10) minutes or until the requirements of the test are met, whichever is longer. At a minimum, the Annular and Blow-Out Preventer pressure tests will be performed:

1. When the BOPE is initially installed;
2. Whenever any seal subject to test pressure is broken;
3. Following related repairs; and
4. At thirty (30) day intervals.

Annular will be function tested weekly, and pipe & blind rams activated each trip, but not more than once per day. All BOP drills & tests will be recorded in IADC driller's log.

C. Choke Manifold Equipment:

All choke lines will be straight lines whenever possible at turns, tee blocks will be used or will be targeted with running tees, and will be anchored to prevent whip and vibration.

D. Accumulator:

Accumulator will have sufficient capacity to open hydraulically-controlled choke line valve (if so equipped), close all rams plus annular preventer, and retain a minimum of 200 psi above precharge on the closing manifold without the use of closing unit pumps. The fluid reservoir capacity will be double accumulator capacity and the fluid level will be maintained at manufacturer's recommendations. Accumulator precharge pressure test will be conducted prior to connecting the closing unit to the BOP stack.

E. Miscellaneous Information:

Choke manifold and BOP extension rods with hand wheels will be located outside rig sub-structure. Hydraulic BOP closing unit will be located at least twenty-five (25) feet from the wellhead but readily accessible to the driller. Exact locations and configurations of the hydraulic BOP closing unit will depend upon the particular rig contracted to drill this hole.

A flare line will be installed after the choke manifold with the discharge point of the flare line to a separate pit located at least 125 feet away from the wellbore and any existing production facilities.

A volume monitoring system with alarms will be used to monitor pit gains/losses along with visual backup.

RECEIVED: August 23, 2012

3. PROPOSED CASING PROGRAM

A. Casing Program: All New

Hole Size	Casing Size	Wt./Ft.	Grade	Joint	Coupling OD	Burst (psi)	Collapse (psi)	Tension (Body/Joint) (klbs)	Depth Set (md)
17-1/2"	13-3/8"	54.50	J-55	ST&C	14.375"	2,730	1,130	853/514	0 – 2,100'
12-1/4"	9-5/8"	47	L-80	LT&C	10.625"	6,870	4,750	1,086/893	0 – 6,300'
8-1/2"	7"	29	L-80	LT&C	7.656"	8,160	7,020	676/587	0 – 10,517'

13-3/8" surface casing will have centralizers as follows:

1. Install a bowspring centralizer at the first and second collars above the guide shoe.
2. Install one bowspring centralizer every third joint above the second collar.
3. Centralizer and basket placed 120' below the surface (or at the bottom of the third joint below the surface).
4. Centralizer and basket placed 80' below the surface (or at the bottom of the second joint below the surface).

9-5/8" intermediate casing will have centralizers as follows:

1. Install a bowspring centralizer at the first and second collars above the guide shoe.
2. After that centralize every third joint to surface with single bow spring centralizers

7" production casing will have centralizers as follows:

1. Install a bowspring centralizer at the first and second collars above the guide shoe.
2. After that centralize every third joint to surface with single bow spring centralizers.

Casing string(s) will be pressure tested to 0.22 psi/foot of casing string length or 1500 psi, whichever is greater (not to exceed 70% of the internal yield strength of the casing), after cementing and prior to drilling out from under the casing shoe.

B. Casing Design Parameters:

Surface Casing

Interval	Size	Wt	Grade	Burst (psi)[a]/SF	Collapse (psi)[b]/SF	Tension (klb)[c]/SF
0' – 2,100'	13-3/8"	54.50 lb/ft	J-55	2,730/1.87	1,130/1.15	514/5.21

a. based on frac gradient at shoe of 14.0 ppg
b. based on full evacuation with 9.0 ppg fluid on backside
c. based on casing string weight in 9.0 ppg mud

String Weight in 9.0 ppg mud ≈ 98,724 lbs

Intermediate Casing

Interval	Size	Wt	Grade	Burst (psi)[a]/SF	Collapse (psi)[b]/SF	Tension (klb)[c]/SF
0' – 6,300'	9-5/8"	47.0 lb/ft	L-80	6,870/3.69	4,750/1.54	893/3.52

a. based on frac gradient at shoe of 14.0 ppg
b. based on full evacuation with 9.4 ppg pore pressure on backside
c. based on casing string weight in 9.4 ppg mud

String Weight in 9.4 ppg mud ≈ 253,606 lbs.

Production Casing

Interval	Size	Wt	Grade	Burst (psi)[a]/SF	Collapse (psi)[b]/SF	Tension (klb)[c]/SF
0'-10,517'	7"	27.0 lb/ft	L-80	8,160/1.17	7,020/1.37	587/2.25

a. based on 7,000 psi frac pressure.
b. based on full evacuation with 9.4 ppg pore pressure on backside
c. based on casing string weight in 9.4 ppg mud

String Weight in 9.4 ppg mud ≈ 261,223 lbs.

RECEIVED: August 23, 2012

4. PROPOSED CEMENTING PROGRAM

Surface Casing – 13-3/8" Casing: TOC Surface, (100% Excess)

CASING	SLURRY	FT. of FILL	CEMENT TYPE	SXS	XC (%)	WEIGHT (ppg)	YIELD (ft^3/sx)
13-3/8"	Lead	1,600'	Lead Cement Rockies LT; - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) - 0.25 lbm/sk Kwik Seal (Lost Circulation Additive)	760	100	11.5	2.94
13-3/8"	Tail	500'	Tail Cement Premium Cement; - 94 lbm/sk Premium Cement (Cement) - 2% Calcium Chloride (Accelerator) - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)	610	100	15.6	1.20

A cement top job is required if cement fallback is greater than 10' below ground level.

Intermediate Casing – 9-5/8" Casing: TOC Surface, (Stage Tool at 3,300' – Stage_1 - 50% Excess, Stage_2 – 50% Excess)

CASING	SLURRY	FT. of FILL	CEMENT TYPE	SXS	XC (%)	WEIGHT (ppg)	YIELD (ft^3/sx)
9-5/8"	Stage_1 – Lead	1,500'	First Stage Lead Cement ECONOCEM; - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) - 1 % HR-5 (Retarder) - 0.2 % Super CBL (Expander)	330	50	12.2	2.16
9-5/8"	Stage_1 – Tail	1,500'	First Stage Tail Cement EXTENDACEM; - 0.5 % HR-5 (Retarder) - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) - 3 lbm/sk Gilsonite (Lost Circulation Additive)	560	50	14.2	1.29
9-5/8"	Stage_2 – Lead	3,300'	Second Stage Primary Cement ECONOCEM; - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) - 0.5 % HR-5 (Retarder) - 0.2 % Super CBL (Expander)	620	50	12.2	2.15

Cement volumes for the 9-5/8" Production Casing will be calculated to provide a top of cement to Surface.

All waiting on cement (WOC) times will be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

RECEIVED: August 23, 2012

Production Casing – 7" Casing: TOC Surface, (35% Excess)

CASING	SLURRY	FT. of FILL	CEMENT TYPE	SXS	XC (%)	WEIGHT (ppg)	YIELD (ft^3/sx)
7"	Lead	6,300'	Lead Cement ECONOCEM; - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) - 0.8 % HR-5 (Retarder) - 0.2 % Super CBL (Expander)	425	35	12.2	2.15
7"	Tail	4,217'	Tail Cement EXTENDACEM; - 0.4 % HR-5 (Retarder) - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)	570	35	14.2	1.29

Cement volumes for the 7" Production Casing will be calculated to provide a top of cement to Surface.

All waiting on cement (WOC) times will be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

5. MUD PROGRAM

Depth (MD)	Mud System	MW	PV	YP	FL
0 -2,100'	Water, Gel/Lime Sweeps	8.4 – 9.0	2 - 20	2 - 18	NC
2,100' – 6,300'	3% KCL Water/Polymer	8.4 – 9.4	10 - 28	6 - 18	6 - 10
6,300' – 10,517'	3% KCL Water/Polymer	8.4 – 9.4	14 - 32	10 - 22	4 - 10

RECEIVED: August 23, 2012

6. EVALUATION PROGRAM

Cores: 60' of core planned from 6,337' to 6,397'.
60' of core planned from 9,664' to 9,754'.

DST: None planned

Surveys: Deviation surveys every 500' to TD in both surface, intermediate and production hole.

Mud Logger:
Samples: 30' samples surface to 10,517'

Open Hole Logging Program: Triple Combo 10,517' to Surface

7. ABNORMAL CONDITIONS

No abnormal pressures are anticipated. No H_2S gas is anticipated.

Anticipated bottom hole pressure is 4,554 psi (0.433 psi/ft) at 10,517' TVD in the Humbug and the maximum anticipated surface pressure equals approximately 2,240 psi (anticipated bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot of hole).

8. ANTICIPATED STARTING DATES

A. Anticipated Starting Dates:

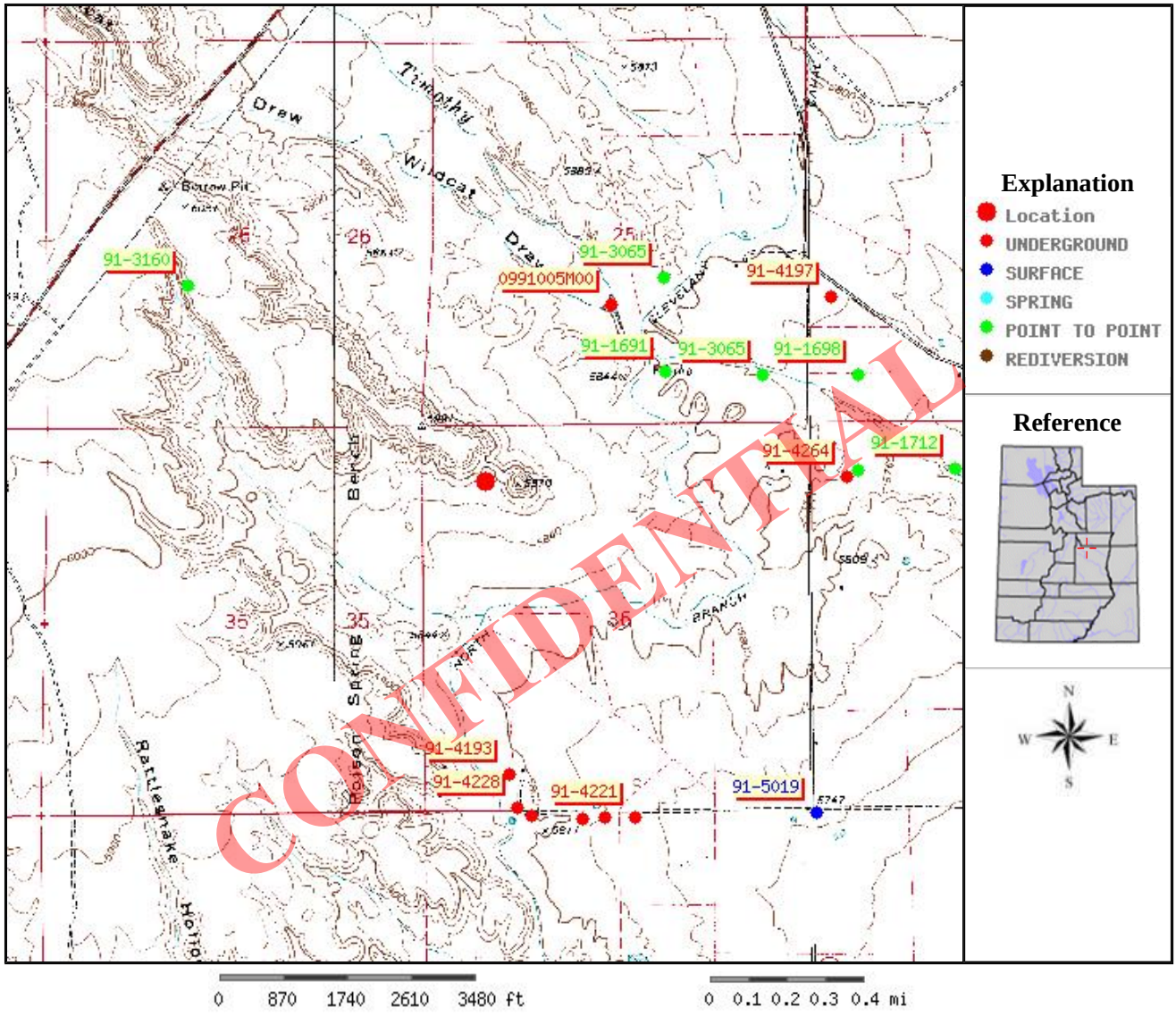
Dirt work startup: July 2012

Spud: July 2012

Duration: 25 – 35 days

RECEIVED: August 23, 2012

Utah Division of Water Rights

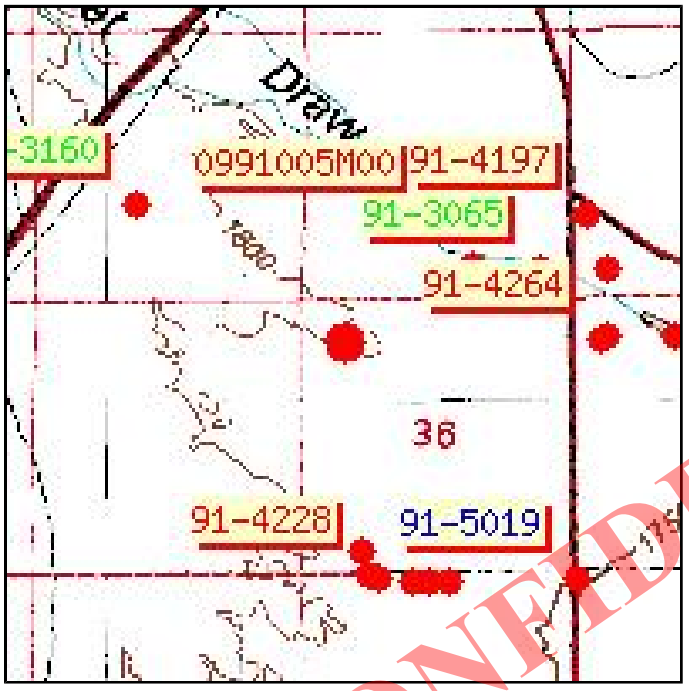


Point Location: S 860 ft, E 856 ft, from the NW Corner, Section 36, Township 16S, Range 9E, SL B&M

Search all of Utah.gov »

Utah Division of Water Rights

Output Listing for Points of Diversion

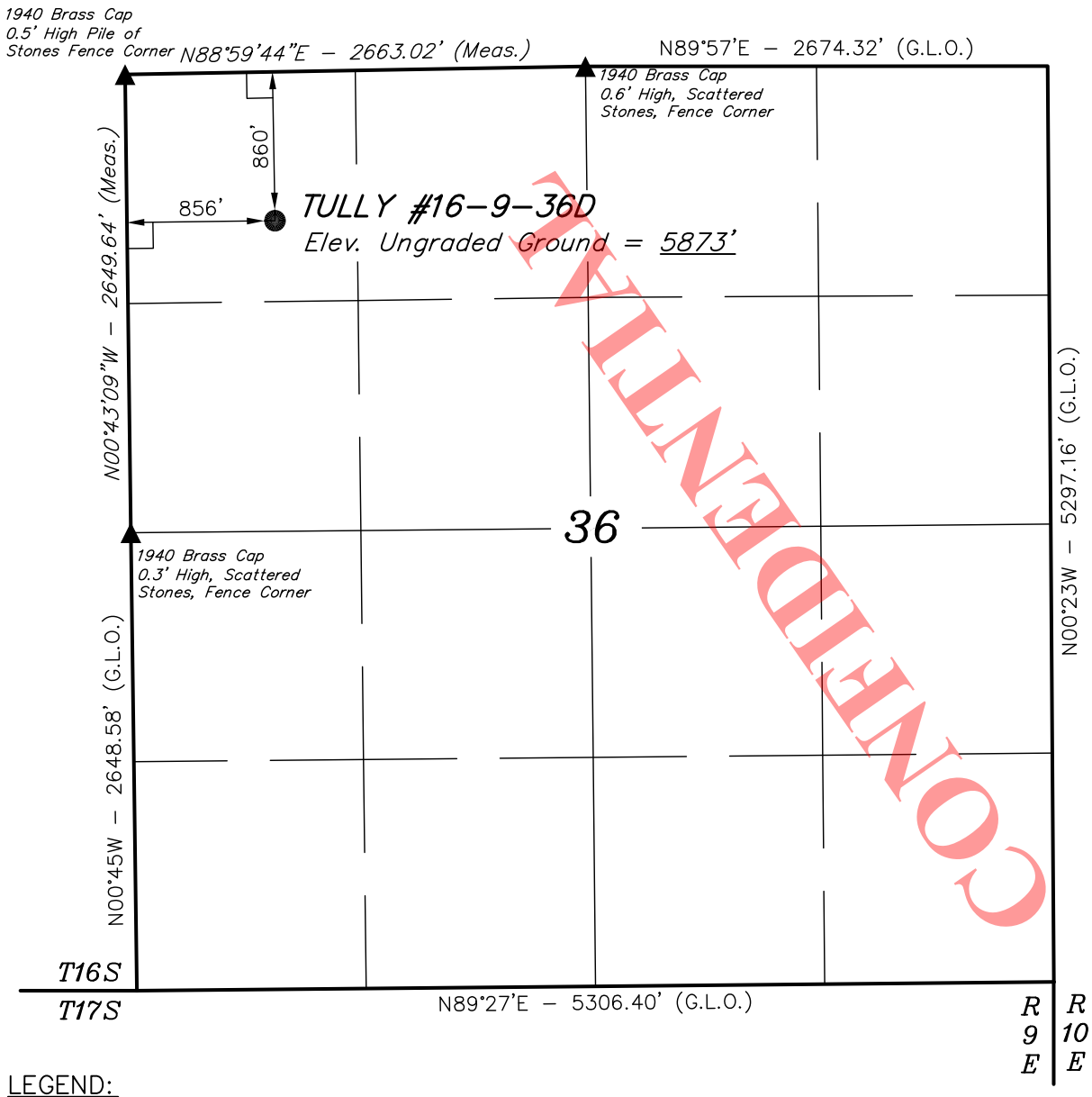


Water Rights

WR Number	Diversion Type/Location	Well Log	Status	Priority	Uses	CFS	ACFT	Owner Name
0991005M00	Underground	well info	A			0.000	0.000	USA BUREAU OF RECLAMATION
	N1584 W84 S4 25 16S 9E SL							302 E 1860 S
91-1684	Point to Point		P	18690000	S	0.000	0.000	JOSEPHINE M. LUNDY
	N660 W660 SE 25 16S 9E SL							CLEVELAND UT 84518
91-1691	Point to Point		P	18690000	S	0.000	0.000	RALPH L. LUNDY
	N660 E660 S4 25 16S 9E SL							CLEVELAND UT 84518
91-1698	Point to Point		P	18690000	S	0.000	0.000	RALPH L. LUNDY
	N660 E660 SW 30 16S 10E SL							CLEVELAND UT 84518
91-1712	Point to Point		P	18690000	S	0.000	0.000	ARVEL & GEORGINA HANSEN
	S660 W660 N4 31 16S 10E SL							ELMO UT 84521
91-3065	Point to Point		P	18690000	S	0.000	0.000	M. JAMES AND DORIS ATWOOD
	S660 W1980 E4 25							CLEVELAND UT 84518

	16S 9E SL					
91-3134	Point to Point		P	18690000 S	0.000 0.000	N. C. OVESON
	S660 E660 NW 31 16S 10E SL					CLEVELAND UT 84518
91-3160	Point to Point		P	18690000 S	0.011 0.000	PRICE FIELD OFFICE USA BUREAU OF LAND MANAGEMENT
	S660 E1980 W4 26 16S 9E SL					125 SOUTH 600 WEST
91-1684	Point to Point		P	18690000 S	0.000 0.000	JOSEPHINE M. LUNDY
	N660 W660 SE 25 16S 9E SL					CLEVELAND UT 84518
91-1691	Point to Point		P	18690000 S	0.000 0.000	RALPH L. LUNDY
	N660 E660 S4 25 16S 9E SL					CLEVELAND UT 84518
91-1698	Point to Point		P	18690000 S	0.000 0.000	RALPH L. LUNDY
	N660 E660 SW 30 16S 10E SL					CLEVELAND UT 84518
91-3065	Point to Point		P	18690000 S	0.000 0.000	M. JAMES AND DORIS ATWOOD
	N660 W660 SE 25 16S 9E SL					CLEVELAND UT 84518
91-4193	Underground	well info	P	19790320 S	0.015 0.000	JAMES B. JARVIS
	N520 E1130 SW 36 16S 9E SL					BOX 38
91-4194	Underground		T	19780323 DIS	0.015 0.000	JAMES O. & PRISCILLA FAITH HAWKINS
	S70 W1220 N4 01 17S 9E SL					CLEVELAND UT 84518
91-4197	Underground		T	19790515 DIS	0.015 0.000	RALPH L. LUNDY
	N1730 E275 SW 30 16S 10E SL					CARBON-EMERY ROUTE
91-4219	Underground		T	19800226 DIS	0.015 0.000	GAROLD K. HORROCKS
	S120 W510 N4 01 17S 9E SL					BOX 246
91-4220	Underground		T	19800226 DIS	0.015 0.000	GAROLD K. HORROCKS
	S100 W220 N4 01 17S 9E SL					BOX 246
91-4221	Underground		T	19800226 DIS	0.015 0.000	GAROLD K. HORROCKS
	S80 E200 N4 01 17S 9E SL					BOX 246
91-4228	Underground		T	19800814 DIS	0.015 0.000	DORENE HORROCKS
	N70 E1240 SW 36 16S 9E SL					FREMONT UT 84727
91-4264	Underground	well info	P	19810506 IS	0.015 0.000	ADELBERT BLAKE SMITH
	S752 E495 NW 31 16S 10E SL					BOX 383
91-5019	Surface		T	19990111 I	0.000 40.400	STEVEN K. ALLRED
	S45 E40 NW 06 17S 10E SL					P.O. BOX 368

T16S, R9E, S.L.B.&M.



LEGEND:

= 90° SYMBOL

● = PROPOSED WELL HEAD.

▲ = SECTION CORNERS LOCATED.

NAD 83 (SURFACE LOCATION)
LATITUDE = 39°23'39.19" (39.394214)
LONGITUDE = 110°52'05.93" (110.868314)
NAD 27 (SURFACE LOCATION)
LATITUDE = 39°23'39.30" (39.394250)
LONGITUDE = 110°52'03.34" (110.867594)

WHITING OIL & GAS CORP.

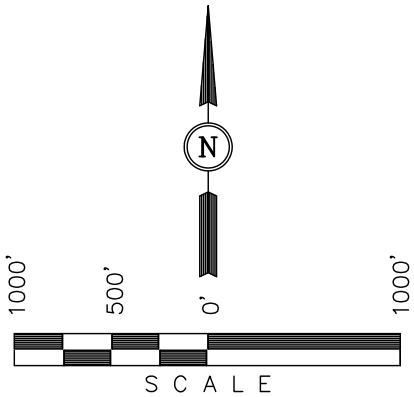
Well location, TULLY #16-9-36D, located as shown in the NW 1/4 NW 1/4 of Section 36, T16S, R9W, S.L.B&M., Emery County, Utah.

BASIS OF ELEVATION

SPOT ELEVATION LOCATED AT THE NORTHWEST CORNER OF SECTION 36, T16S, R9E, S.L.B.&M., TAKEN FROM THE ELMO QUADRANGLE, UTAH, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5991 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

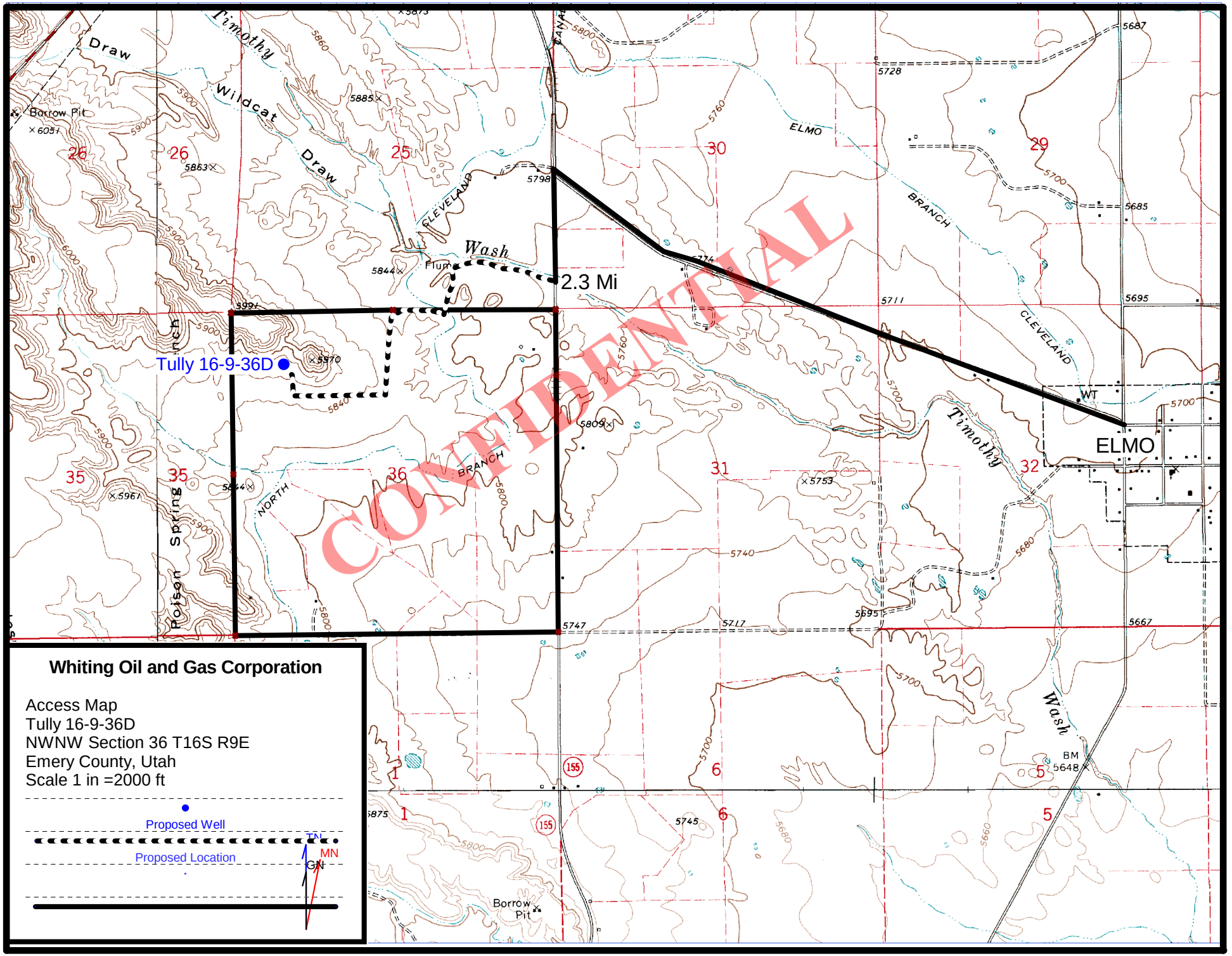
REVISED: 08-01-2012

UINTAH ENGINEERING & LAND SURVEYING 85 SOUTH 200 EAST – VERNAL, UTAH 84078 (435) 789-1017		
SCALE 1" = 1000'	DATE SURVEYED: 12-20-11	DATE DRAWN: 12-23-11
PARTY B.B. J.G. B.L.B.	REFERENCES G.L.O. PLAT	
WEATHER COLD	FILE WHITING OIL & GAS CORP.	

API Well Number: 43015500030000

RECEIVED: August 23, 2012

API Well Number: 43015500030000



Whiting Oil and Gas Corporation

Access Map
Tully 16-9-36D
NWNW Section 36 T16S R9E
Emery County, Utah
Scale 1 in =2000 ft

Proposed Well
Proposed Location
TN
MN
GN

Tully 16-9-36
NWNW Sec. 36, T16S, R9E
Emery County, Utah
Fee Minerals

Whiting Oil and Gas Corporation

Related Surface Information

1) CURRENT SURFACE USE: Livestock Grazing.

2) PROPOSED SURFACE DISTURBANCE:

a) The road will be crown and ditch. Water wings will be constructed on the access road as needed.
b) The topsoil will be windrowed and respread in the borrow area.
c) New construction and upgraded road to be constructed will be approximately 6557 feet in length, 25 feet wide.
d) All equipment and vehicles will be confined to the access road, pad and area specified in the APD.

3) LOCATION OF EXISTING WELLS:

Existing oil, gas and water wells within one (1) mile radius of proposed well:
Producing Wells = 0
Plugged and Abandoned wells = 0
Water Wells = see attached map and list

Water for drilling will be obtained from the Town of Elmo, Utah municipal water supply.

4) EXISTING/PROPOSED FACILITIES FOR PRODUCTIVE WELL:

a) There are no existing facilities that will be utilized for this well.
b) Upgrade and maintain access roads and drainage control structures (e.g., culverts, drainage dips, ditching, etc.) as necessary to prevent soil erosion and accommodate safe, year-round traffic.

5) CONSTRUCTION MATERIALS:

Native soil from road and location will be used for construction materials along with gravel and/or scoria road base material. In the event that conditions should necessitate graveling of all or part of the access road and location, surfacing materials will be purchased from commercial suppliers in the marketing area.

RECEIVED: August 23, 2012

6) METHODS FOR HANDLING WASTE DISPOSAL:

a) The reserve pit will be designed to prevent the collection of surface runoff and will be constructed with a minimum of ½ the total depth below the original ground surface on the lowest point within the pit. The pit will be lined with a 9-mil polyethylene to prevent leakage of fluids. The liner will be rolled into place and secured at the ends, i.e. buried on top of the pit berms. Prior to use, the reserve pit will be fenced on three sides; the fourth side will be fenced at the time the rig is removed. Drilling fluids, cuttings and produced water will be contained in the reserve pit (trash will be placed in the trash cage). Fluids in the reserve pit will be allowed to evaporate prior to pit burial.

b) Garbage and other trash will be contained in a portable trash cage and hauled off the location to an authorized disposal site. Any trash on the pad will be cleaned up prior to the rig move off location and hauled to an authorized disposal site.

c) Sewage will be handled in Portable Toilets.

d) Produced water will be placed in the reserve pit for a period not to exceed ninety days after initial production. Any hydrocarbons produced during completion work will be contained in test tanks and removed from location at a later date.

e) Water from the reserve pit may be used for drilling of additional wells. The water will be trucked along access roads as approved in pertinent APD's.

7) ANCILLARY FACILITIES:

There will be no ancillary facilities associated with this project.

8) SURFACE RECLAMATION PLANS:

Backfilling of the pits will be done when dry. In the event of a dry hole, the location will be re-contoured, the topsoil will be distributed evenly over the entire location, and the seedbed prepared

a) Seed will be planted after September 15th, and prior to ground frost, or seed will be planted after the frost has left and before May 15th. Slopes to steep for machinery will be hand broadcast and raked with twice the specified amount of seed.

1. The construction program and design are on the attached cut, fill and cross sectional diagrams.
2. Prior to construction, all topsoil will be removed from the entire site and stockpiled. Topsoil for this site is the first 6 inches of soil materials.
3. After the location has been reshaped and after redistributing the topsoil, the operator will rip and scarify the drilling platform and access road on the contour, to a depth of at least 12 inches.

b) Rehabilitation will begin upon the completion of the drilling. Complete rehabilitation will depend on weather conditions and the amount of time required to dry the reserve pit.

RECEIVED: August 23, 2012

2. All rehabilitation work including seeding will be completed as soon as weather and the reserve pit conditions are appropriate.
3. Landowner will be contacted for rehabilitation requirements.

9) SURFACE OWNERSHIP:

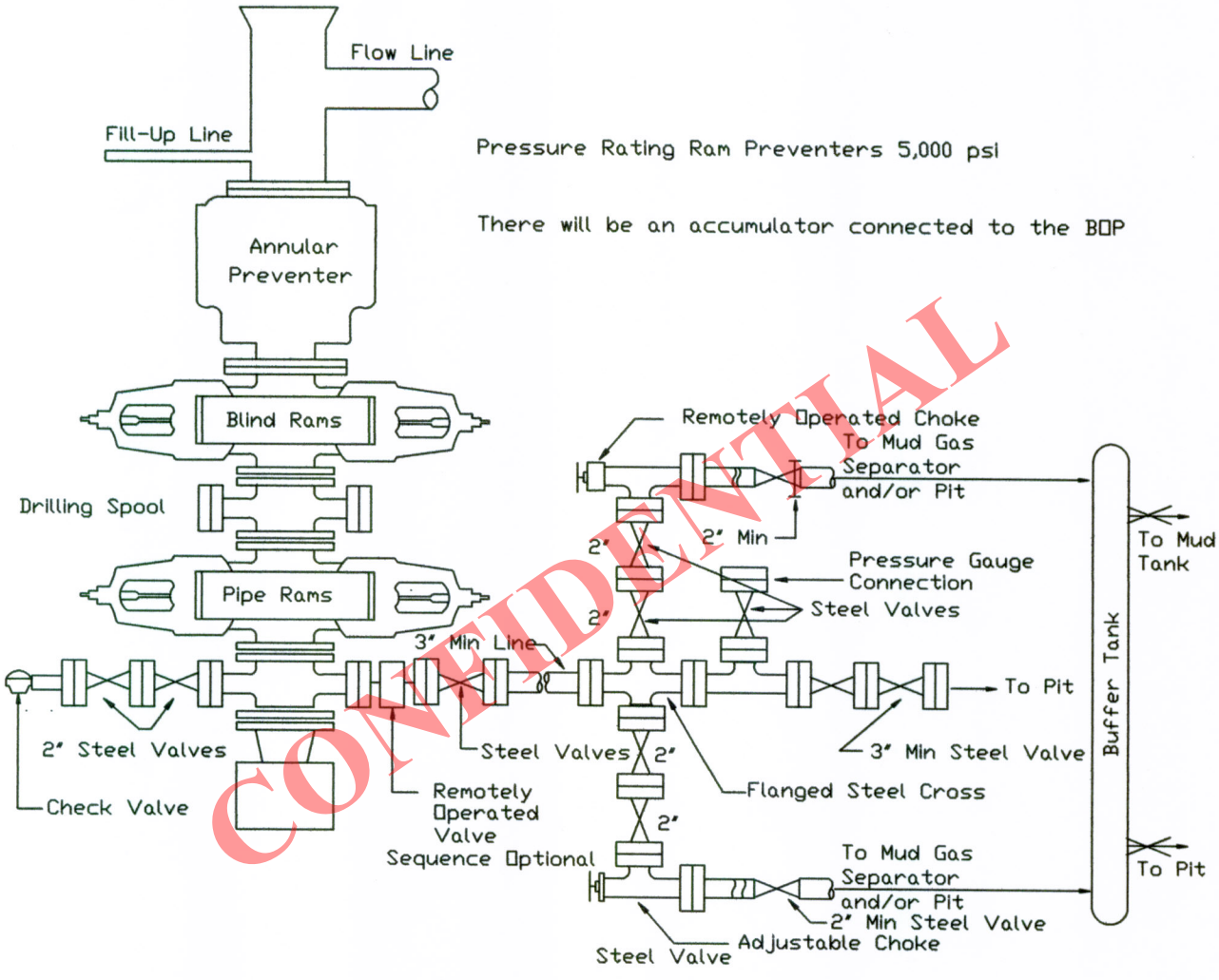
Mark Austin
PO Box 301
Cleveland Utah 84513
Phone 435-653-2992

10) OTHER INFORMATION:

a) The surface soil consists of clay, and silt.
b) Flora - vegetation consists of the following: Sagebrush, Juniper and prarie grasses.
c) Fauna - antelope, deer, coyotes, raptors, small mammals, and domestic grazing animals.
d) Current surface uses – Livestock grazing and mineral exploration and production.

RECEIVED: August 23, 2012

API Well Number: 43015500030000



Pressure Rating Ram Preventers 5,000 psi

There will be an accumulator connected to the BOP

The location of the rams, drilling spool (if used) and the size and location of the valves may vary depending on the rig used. However, all equipment will meet BLM and Utah Division of Oil, Gas and Mining Specifications.

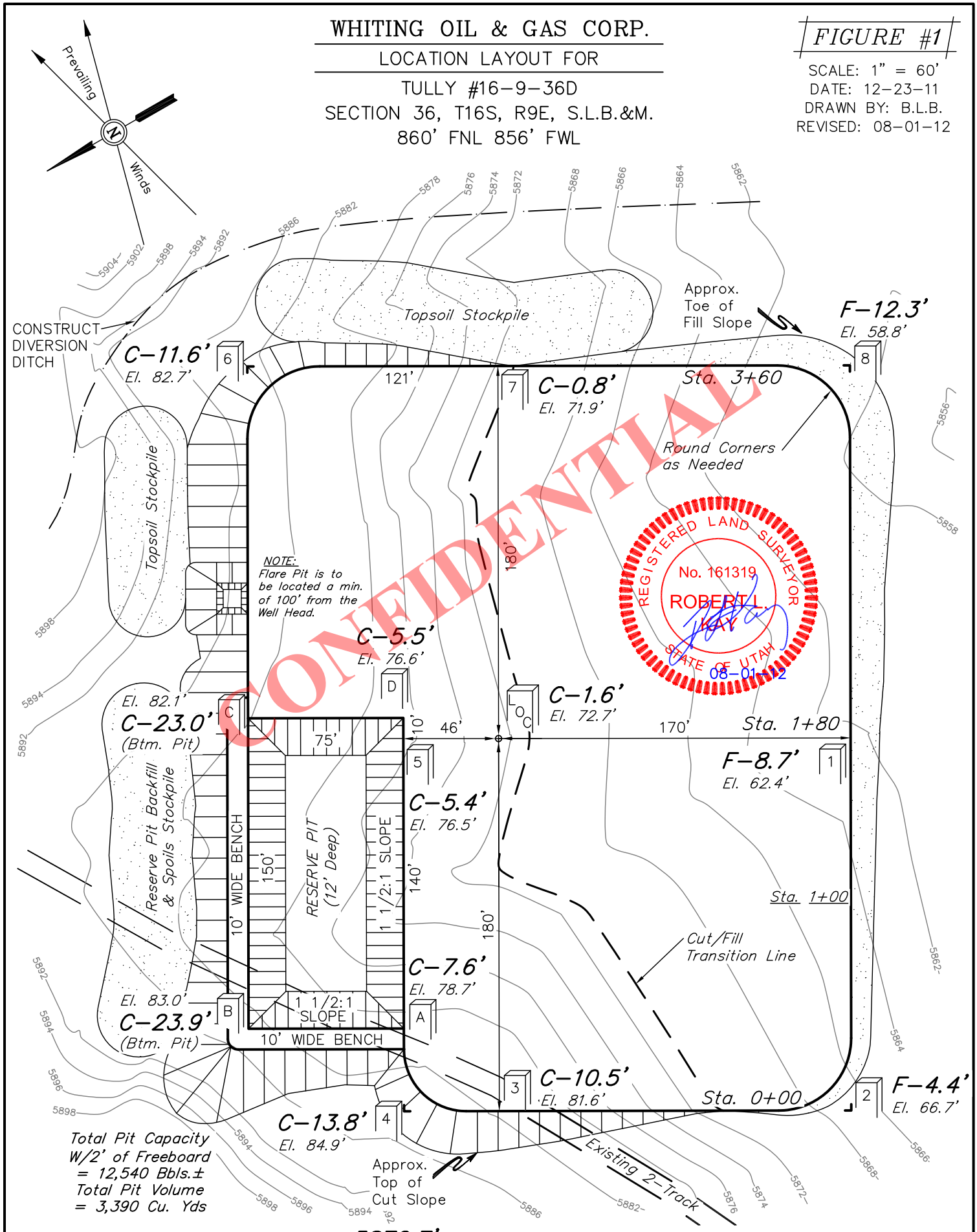
H & B PETROLEUM CONSULTANTS

WHITING OIL & GAS CORP.

LOCATION LAYOUT FOR

TULLY #16-9-36D
SECTION 36, T16S, R9E, S.L.B.&M.
860' FNL 856' FWL

FIGURE #1
SCALE: 1" = 60'
DATE: 12-23-11
DRAWN BY: B.L.B.
REVISED: 08-01-12



REGISTERED LAND SURVEYOR
No. 161319
ROBERT L. KAY
STATE OF UTAH
08-01-12

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

RECEIVED: August 23, 2012

API Well Number: 43015500030000

1" = 40'
X-Section Scale
1" = 100'

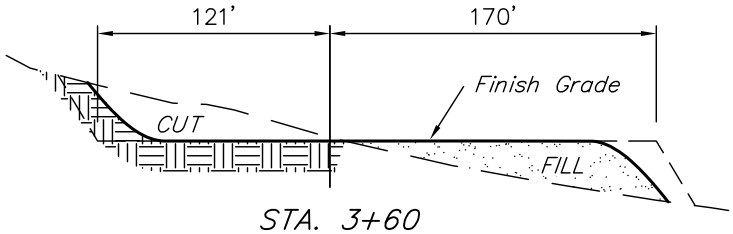
WHITING OIL & GAS CORP.

TYPICAL CROSS SECTIONS FOR

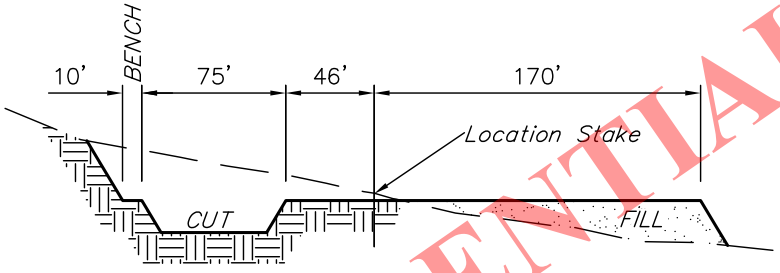
TULLY #16-9-36D
SECTION 36, T16S, R9E, S.L.B.&M.
860' FNL 856' FWL

FIGURE #2

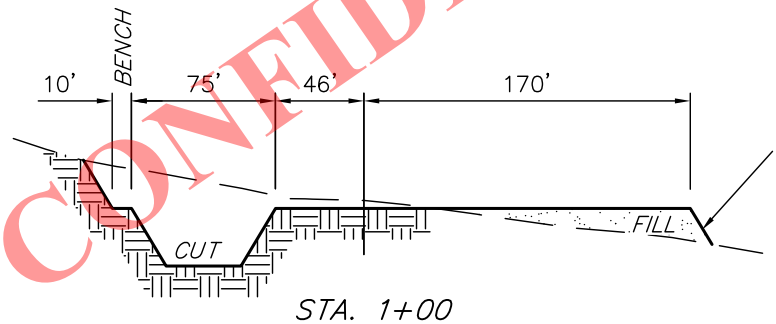
DATE: 12-23-11
DRAWN BY: B.L.B.
REVISED: 08-01-12



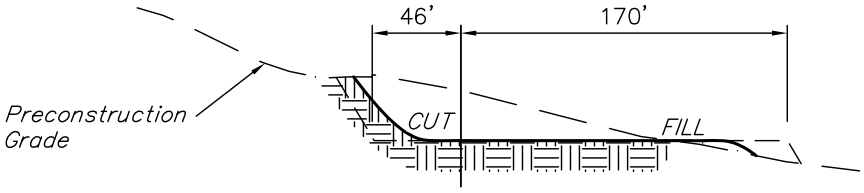
STA. 3+60



STA. 1+80



STA. 1+00



STA. 0+00

REGISTERED LAND SURVEYOR
No. 161319
ROBERT L. KAY
STATE OF UTAH
08-01-12

NOTE:
Topsoil should not be Stripped Below Finished Grade on Substructure Area.

APPROXIMATE ACREAGES
WELL SITE DISTURBANCE = ± 3.267 ACRES

* NOTE:
FILL QUANTITY INCLUDES 5% FOR COMPACTION

APPROXIMATE YARDAGES

(6") Topsoil Stripping	=	2,300 Cu. Yds.
Remaining Location	=	15,210 Cu. Yds.
TOTAL CUT	=	17,510 CU.YDS.
FILL	=	13,280 CU.YDS.

EXCESS MATERIAL	=	4,230 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	=	4,000 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	=	230 Cu. Yds.

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

RECEIVED: August 23, 2012

API Well Number: 43015500030000

THIS AGREEMENT is made and entered into this **15th day** of **May, 2012** by and between **Mark D. Austin and Angela Austin, a/k/a Angie Austin, husband and wife,** whose address is **P.O. Box 301, Cleveland, UT 84518-0301,** hereinafter referred to as "Grantor" whether one or more, and **Whiting Oil and Gas Corporation,** whose address is **1700 Broadway, Ste. 2300, Denver, CO 80290-2300,** hereinafter referred to as "Grantee".

WHEREAS, Grantor is the surface owner of the following described lands in **Emery County, Utah:**

Township 16 South, Range 9 East, S.L.B.&M.
Section 36: NW/4NE/4 and NW/4

(hereinafter referred to as the "Lands") and

WHEREAS, Grantee desires to enter onto and cross such Lands for the purpose of drilling the following oil and/or gas well:

Well Name	Lands	Section	Township	Range	County
Poison Spring #16-9-36D	**NW/4NW/4**	**36**	**16 South**	**9 East**	**Emery**

(hereinafter referred to as the "Drill Site").

NOW THEREFORE, for and in consideration of the mutual promises and covenants herein contained, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

I. Grantee and its assigns or agents shall have the right to locate an access road across the subject Lands, and shall have the unrestricted right to move and install pipelines, derricks, drilling tools, vehicles and all other machinery and equipment necessary or incident to the drilling, testing, completion and operation of an oil and/or gas well at the Drill Site.

II. Grantee shall pay to Grantor the sum of [redacted] for the surface damages for the **one** well for the Drill Site location and the sum of [redacted] for the access road across the subject Lands to the Drill Site location. This onetime payment to Grantor is for damages and non-restricted use of the access road and Drill Site location. Prior to commencement of actual operations of constructing or reconstructing the access road on said Lands, the sums, settlement and payments agreed to in this Paragraph II are due and payable, or this Agreement terminates with respect to both Grantor and Grantee. If payments provided for herein have not been made within one year of the date of this Agreement, this agreement shall not terminate.

III. This Agreement and the rights granted herein are effective on the date of execution by Grantor and shall continue in full force and effect so long as operations are conducted on the wellsite.

IV. Cattle guards or gates will be constructed, if requested by Grantor, at all places where they go through. The existing fences and gates will be kept closed at all times except when opened for passage of traffic.

V. If there is any fill used for roads constructed across any drainage, then culverts will be used for the free flow of water through said drainage.

VI. If the access road departs from existing established roadways and new construction is required, topsoil will be segregated and stockpiled for replacement during reclamation activities.

VII. It is understood that any road constructed across the said Lands shall not exceed **thirty three (33) feet** in width without the prior approval of Grantor.

VIII. Upon completion of the well, and the [illegible]

Any existing roads and the improvements thereto which are constructed by Grantee shall be left in a good and useable condition for the continued use by Grantor, at Grantor's option.

IX. It is expressly understood that this settlement is only for construction and unrestricted use of an access road and Drill Site location and it is not a settlement for any damages to contiguous property, personal property of the Grantor or a release of any personal injuries that may be sustained by reason of the operations carried on by the oil and gas lessee or his agent.

X. Both the Grantor and Grantee may assign this Agreement.

XI. This Agreement shall be binding upon the Parties hereto, their heirs, successors and assigns, and shall run with the Lands.

XII. This Agreement constitutes the entire agreement between the Parties and supersedes all prior agreements and understandings, both written and oral, between the Parties with respect to the subject matter hereof. This Agreement may only be amended, modified, or supplemented by a written instrument signed by all the Parties expressly stating that such instrument is intended to amend, modify or supplement this Agreement.

XIII. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, and all of which together shall be considered one and the same document.

XIV. If at any time subsequent to the date hereto any provision of this Agreement shall be held by any court of competent jurisdiction to be illegal, void or unenforceable, such provision shall be of no force and effect, but the illegality or unenforceability of such provision shall have no effect upon and shall not impair the enforceability of the other provisions of this Agreement.

XV. The Parties to this Agreement shall also execute a Memorandum evidencing the execution of this Agreement. Said Memorandum of Agreement may be recorded in the appropriate County Recorder's Office to provide notice of the existence of this Agreement.

XVI. Grantee agrees to use the attached road route to the wellsite proposed by the Grantor, which is approximately 4,500 feet in length and will be determined by and subject to the survey and engineering thereof.

IN WITNESS WHEREOF, the parties have set their hands on the day and year first written above.

GRANTOR:

By: **Mark D. Austin**

By: **Angela Austin,** a/k/a Angie Austin

GRANTEE: Whiting Oil and Gas Corporation

By: **David M. Seery, Vice President-Land**

ACKNOWLEDGEMENTS

STATE OF **UTAH**)
) ss.
COUNTY OF ~~**EMERY**~~ Carbon)

On this 22 **day** of **May, 2012,** before me, a Notary Public, personally appeared **Mark D. Austin and Angela Austin, a/k/a Angie Austin, husband and wife,** known to me to be the **persons** described in and who executed the within instrument, and acknowledged to me that **they** executed the

API Well Number: 43015500030000

NOTARY PUBLIC
TAMERA JEAN ELLIS
609189
COMMISSION EXPIRES
JULY 16, 2015
STATE OF UTAH

NOTARY PUBLIC
My Commission Expires: July 16, 2015

STATE OF **COLORADO**)
) **ss.**
COUNTY OF **DENVER**)

On this 15th **day** of MAY, **2012,** before me, a Notary Public, personally appeared **David M. Seery, Vice President-Land,** a duly Authorized Agent of **Whiting Oil and Gas Corporation,** on behalf of the corporation.

WITNESS my hand and official seal the day and year first above written.

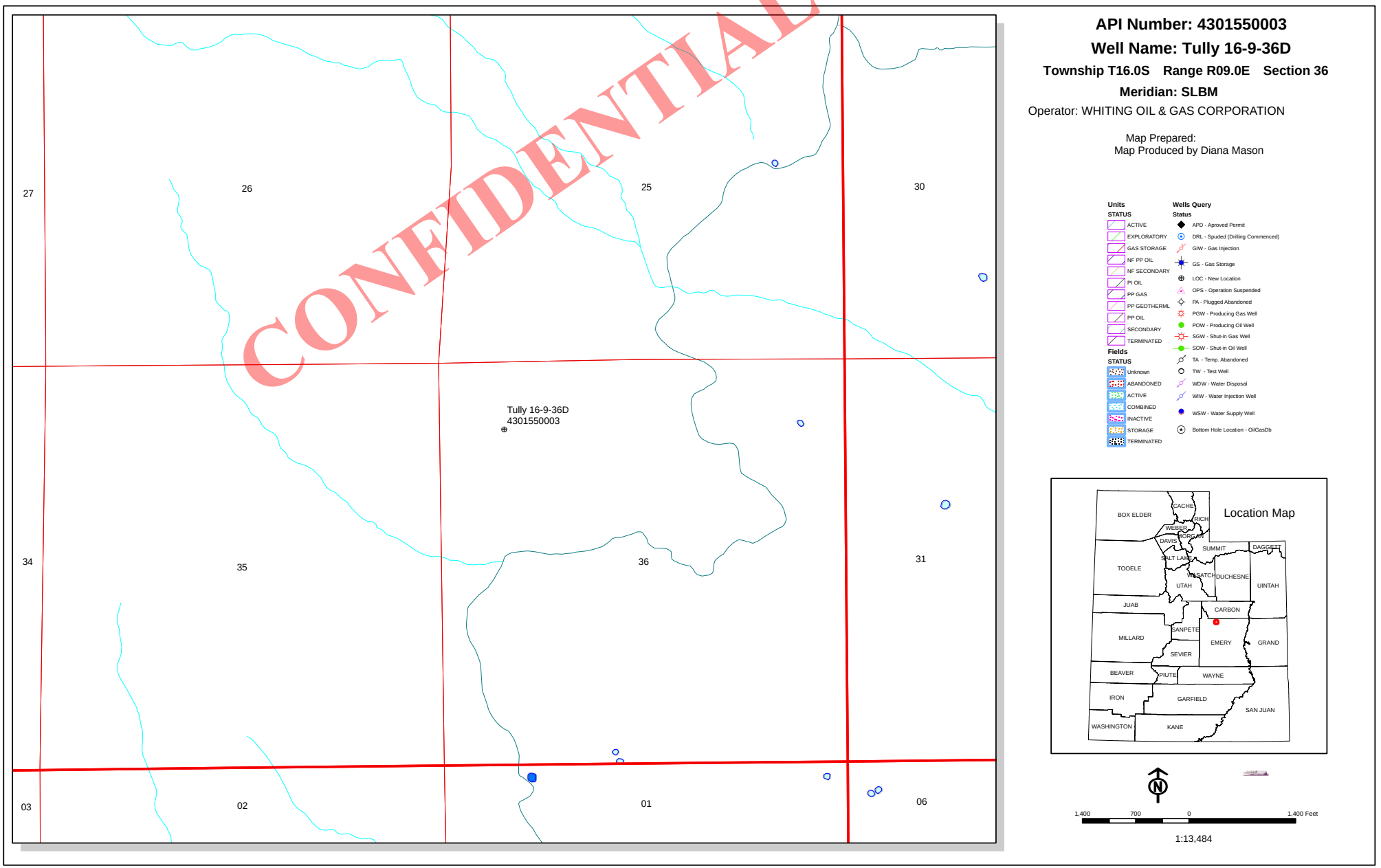
(SEAL)

FRANK J. OLSEY III
Notary Public
State of Colorado

NOTARY PUBLIC
My Commission Expires: 8-31-2014

API Well Number: 43015500030000

API Well Number: 43015500030000



API Number: 4301550003

Well Name: Tully 16-9-36D

Township T16.0S Range R09.0E Section 36

Meridian: SLBM

Operator: WHITING OIL & GAS CORPORATION

Map Prepared:
Map Produced by Diana Mason

Units
STATUS
ACTIVE
EXPLORATORY
GAS STORAGE
NF PP OIL
NF SECONDARY
PI OIL
PP GAS
PP GEOTHERML
PP OIL
SECONDARY
TERMINATED

Fields
STATUS
Unknown
ABANDONED
ACTIVE
COMBINED
INACTIVE
STORAGE
TERMINATED

Wells Query
Status
APD - Aproved Permit
DRL - Spuded (Drilling Commenced)
GIW - Gas Injection
GS - Gas Storage
LOC - New Location
OPS - Operation Suspended
PA - Plugged Abandoned
PGW - Producing Gas Well
POW - Producing Oil Well
SGW - Shut-in Gas Well
SOW - Shut-in Oil Well
TA - Temp. Abandoned
TW - Test Well
WDW - Water Disposal
WIW - Water Injection Well
WSW - Water Supply Well
Bottom Hole Location - OilGasDb

1,400 700 0 1,400 Feet

1:13,484

RECEIVED: September 04, 2012

API Well Number: 43015500030000

BOPE REVIEW **WHITING OIL & GAS CORPORATION Tully 16-9-36D 43015500030000**

Well Name	WHITING OIL & GAS CORPORATION Tully 16-9-36D 4301550003000			
String	SURF	I1	PROD	
Casing Size(")	13.375	9.625	7.000	
Setting Depth (TVD)	2100	6300	10517	
Previous Shoe Setting Depth (TVD)	0	2100	6300	
Max Mud Weight (ppg)	9.0	9.4	9.4	
BOPE Proposed (psi)	0	5000	5000	
Casing Internal Yield (psi)	2730	6870	8160	
Operators Max Anticipated Pressure (psi)	4554		8.3	

Calculations	SURF String	13.375	"	
Max BHP (psi)	.052*Setting Depth*MW=	983		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	731	NO	water, gel lime sweeps
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	521	NO	OK
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	521	NO	No expected pressure
Required Casing/BOPE Test Pressure=		1911	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi	*Assumes 1psi/ft frac gradient

Calculations	I1 String	9.625	"	
Max BHP (psi)	.052*Setting Depth*MW=	3079		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	2323	YES	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	1693	YES	OK
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	2155	NO	OK
Required Casing/BOPE Test Pressure=		4809	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		2100	psi	*Assumes 1psi/ft frac gradient

Calculations	PROD String	7.000	"	
Max BHP (psi)	.052*Setting Depth*MW=	5141		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	3879	YES	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	2827	YES	OK
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	4213	YES	OK
Required Casing/BOPE Test Pressure=		5000	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		6300	psi	*Assumes 1psi/ft frac gradient

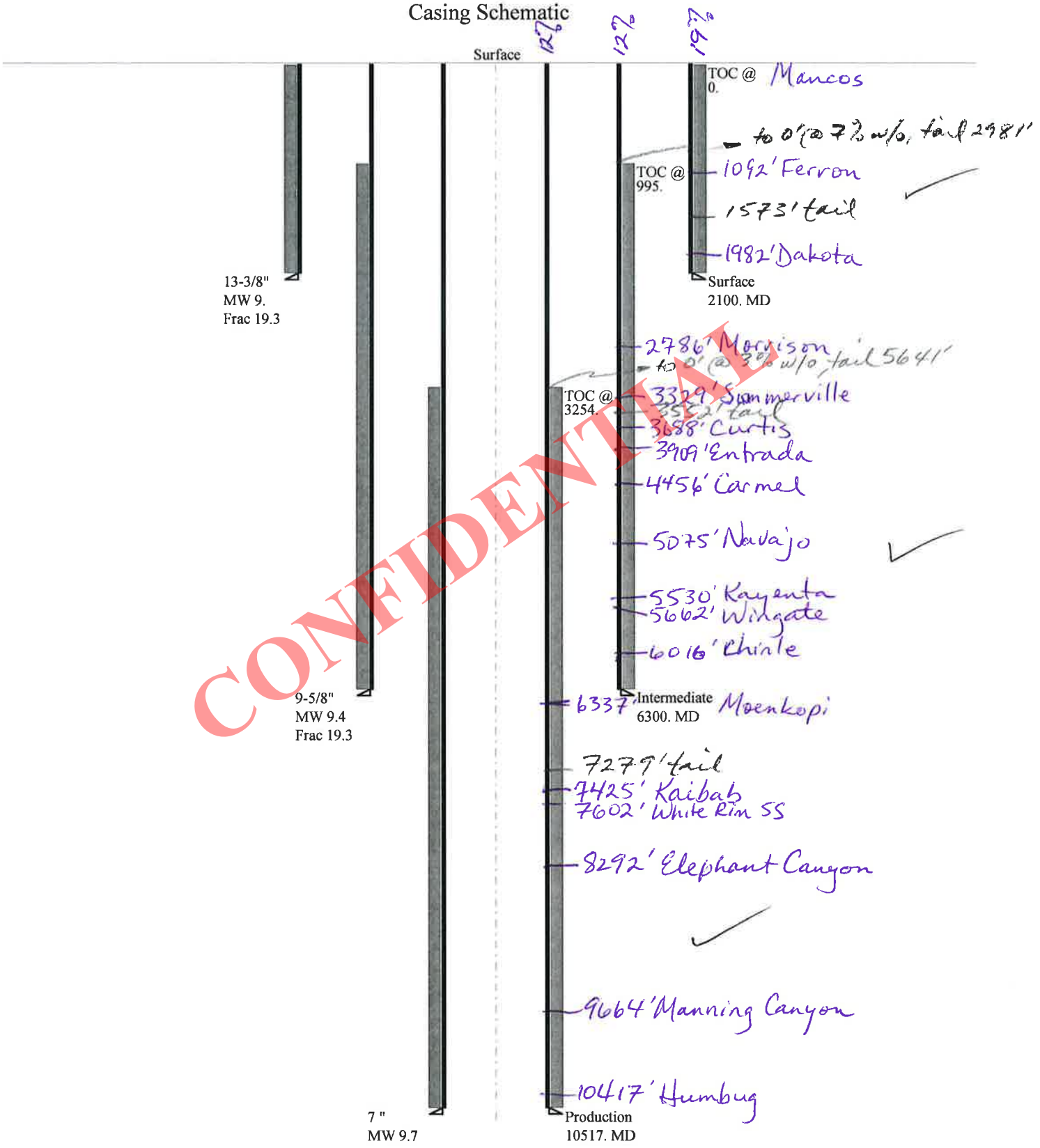
Calculations	String		"	
Max BHP (psi)	.052*Setting Depth*MW=			
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO	
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO	
Required Casing/BOPE Test Pressure=			psi	
*Max Pressure Allowed @ Previous Casing Shoe=			psi	*Assumes 1psi/ft frac gradient

RECEIVED: October 11, 2012

API Well Number: 43015500030000

43015500030000 Tully 16-9-36D

Casing Schematic



API Well Number: 43015500030000

Well name:	**43015500030000 Tully 16-9-36D**
Operator:	**WHITING OIL & GAS CORPORATION**
String type:	Surface
Project ID:	43-015-50003
Location:	EMERY COUNTY

Design parameters:

Collapse
Mud weight: 9.000 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 1,848 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,100 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.70 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on air weight.
Neutral point: 1,821 ft

Environment:
H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 103 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: Surface

Non-directional string.

Re subsequent strings:
Next setting depth: 6,300 ft
Next mud weight: 9.400 ppg
Next setting BHP: 3,076 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,100 ft
Injection pressure: 2,100 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	2100	13.375	54.50	J-55	ST&C	2100	2100	12.49	26057

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	982	1130	1.151	2100	2730	1.30	114.4	514	4.49 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: October 11,2012
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 2100 ft, a mud weight of 9 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

API Well Number: 43015500030000

Well name:	**43015500030000 Tully 16-9-36D**
Operator:	**WHITING OIL & GAS CORPORATION**
String type:	Intermediate
Project ID:	43-015-50003
Location:	EMERY COUNTY

Design parameters:

Collapse
Mud weight: 9.400 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 2,822 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 4,208 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 5,412 ft

Environment:
H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 162 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,000 ft

Cement top: 995 ft

Non-directional string.

Re subsequent strings:
Next setting depth: 10,517 ft
Next mud weight: 9.400 ppg
Next setting BHP: 5,136 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 6,300 ft
Injection pressure: 6,300 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	6300	9.625	47.00	L-80	LT&C	6300	6300	8.625	105904

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	3076	4760	1.547	4208	6870	1.63	296.1	893	3.02 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: October 11,2012
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 6300 ft, a mud weight of 9.4 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

API Well Number: 43015500030000

Well name:	**43015500030000 Tully 16-9-36D**
Operator:	**WHITING OIL & GAS CORPORATION**
String type:	Production
Project ID:	43-015-50003
Location:	EMERY COUNTY

Design parameters:

Collapse
Mud weight: 9.700 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 2,986 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 5,299 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 8,973 ft

Environment:
H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 221 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,000 ft

Cement top: 3,254 ft

Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	10517	7	29.00	L-80	LT&C	10517	10517	6.059	114252

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	5299	7020	1.325	5299	8160	1.54	305	587	1.92 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: October 11,2012
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 10517 ft, a mud weight of 9.7 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

ON-SITE PREDRILL EVALUATION
Utah Division of Oil, Gas and Mining

Operator WHITING OIL & GAS CORPORATION
Well Name Tully 16-9-36D
API Number 43015500030000 **APD No** 6704 **Field/Unit** WILDCAT
Location: 1/4,1/4 NWNW **Sec** 36 **Tw** 16.0S **Rng** 9.0E 860 FNL 856 FWL
GPS Coord (UTM) **Surface Owner** Mark Austin

Participants

Bart Kettle-Division of Oil, Gas & Mining (DOGM), Mike McCandless-Emery County Economic Development, Mike Brown-CEP H&B Petroleum Consultants, Mark Austin-Surface Owner.

Regional/Local Setting & Topography

Proposed project is located 3.2 miles north of the town of Cleveland, in Emery County Utah. Locally the proposed project is surrounded by salt scrub range lands adjacent to agriculture lands used to grow alfalfa, small grains and irrigated pasture. The closest permanent residents are located 0.7 miles to the east and south. Lights from drilling operations will be visible from some permanent residents.

Regionally the project area is within in the Castle Valley. The Castle Valley is largely composed of arid sites with poorly developed soils and sparse vegetation. Topography rises sharply to the west reaching elevations in excess of 10,000 atop the Wasatch Plateau. Montane forest and high elevation grass/forb communities dominate vegetation. To the east a series of reefs rise to the San Rafael Swell. Vegetation is a mixture of salt desert scrub and Pinion/Juniper forest.

Natural precipitation at the project site is considered a 8-10" zone, although artificial irrigation will raise annual water applications to around 40" in surrounding agriculture fields. Drainage flows into the North Branch of the Cleveland Cannel where it would be distributed to various agriculture fields.

Surface Use Plan

Current Surface Use
Grazing
Wildlfe Habitat

New Road Miles	Well Pad	Src Const Material	Surface Formation
1.25	**Width** 300 **Length** 360	Onsite	MNCS

Ancillary Facilities N

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

RECEIVED: October 15, 2012

Flora:
Grass: Salina Wild rye grass, Indian Rice grass, Curly Gallata, bottle brush squirrel tail, cheat grass.

Forbs: Globe mallow.

Shrubs: Black greasewood, mat salt brush, shade scale.

Trees: None at project site

Fauna: Site has the potential to hold small ground nesting birds, seasonal use by song birds, burrowing rodents, red fox, coyote, stripped skunk, antelope and mule deer.

Soil Type and Characteristics

Fine gray clays weathered from Mancos shale inter mixed with sandstone fragments. NRCS classify soils as Persayo Vickel Complex

Erosion Issues Y

Soils prone to wind erosion once disturbed. Fresh water should be applied to access road and well pad to control dust.

Sedimentation Issues N

Site Stability Issues N

Site appears suitable for the proposed drilling program.

Drainage Diverson Required? Y

Storm water should be diverted prior to entering well pad.

Berm Required? N

Erosion Sedimentation Control Required? Y

Apply fresh water to access road and well pad for dust control.

Paleo Survey Run? N **Paleo Potental Observed?** N **Cultural Survey Run?** N **Cultural Resources?** N

Reserve Pit

Site-Specific Factors		Site Ranking
Distance to Groundwater (feet)	>200	0
Distance to Surface Water (feet)	>1000	0
Dist. Nearest Municipal Well (ft)	>5280	0
Distance to Other Wells (feet)	>1320	0
Native Soil Type	Low permeability	0
Fluid Type	TDS>5000 and	10
Drill Cuttings	Normal Rock	0
Annual Precipitation (inches)		0

RECEIVED: October 15, 2012

Affected Populations	10 to 30	10 to 30
Presence Nearby Utility Conduits	Not Present	0
	Final Score	16 3 Sensitivity Level

Characteristics / Requirements

APD proposed 9 mil liner. A 12 mil synthetic line is being required.

Closed Loop Mud Required? N **Liner Required?** Y **Liner Thickness** 12 **Pit Underlayment Required?** N

Other Observations / Comments

Emery County expressed concern regarding nuisance issues potentially associated with the proposed project. Previous oil and gas related activities in the county have lead to public complaints and several public meetings. Potential nuisance issue are:
Dust
H2S
Noise
Rig Lights
County Road Encroachment
It is in the best interest of all parties to take steps prior to drilling to limit potential for conflicts. Access roads and the well pad should have regular application of fresh water to control dust. In the event that an air drilling package is used a foaming agent is recommended to control dust from drill cuttings. Management of fluids should include a biocide to prevent the formation of H2S. Emery County recommends an informative heads up be delivered to surrounding residents outlining the project location, activities and anticipated length prior to initiating drilling activities.

DOGM expressed concern that an access gate/cattle guard arrangement had not be discussed with the surface owner. Access gate should meet the wishes of the surface owner, but at a minimum contain enough width to accommodate the expected traffic and remain functional as a barrier to livestock. A combination of a cattle guard with panel gates and a wire gate on the side is recommended for access from Hwy 155 and at the property boundary.

Bart Kettle	9/25/2012
Evaluator	**Date / Time**

RECEIVED: October 15, 2012

Application for Permit to Drill
Statement of Basis
Utah Division of Oil, Gas and Mining

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
6704	43015500030000	LOCKED	OW	P	No
Operator	WHITING OIL & GAS CORPORATION		**Surface Owner-APD**	Mark Austin	
Well Name	Tully 16-9-36D		**Unit**		
Field	WILDCAT		**Type of Work**	DRILL	
Location	NWNW 36 16S 9E S 860 FNL 856 FWL GPS Coord (UTM) 511339E 4360531N				

Geologic Statement of Basis

The proposed well is to be drilled to a total depth of 10,517' with surface casing set from 0'-2,100'. The surface string will be drilled using fresh water and gel/lime sweeps. Within a 10,000' radius from the proposed well there are several shallow subsurface groundwater rights which are used for domestic, irrigation, and stock watering purposes. Several of the wells are also used for groundwater monitoring. The wells range in depth from 20' to 500'. The poorly permeable soil has been formed from the erosion of the Blue Gate Member of the Mancos Shale. Units of the Ferron Sandstone Member of the Mancos Shale are present in the subsurface, this stata is included within the interval to be protected by the surface casing string. The operator should be aware of the likelihood of these units being water saturated and to respond to protecting these zones as necessary. Proposed surface casing and cement should adequately isolate any shallow zones containing water. The Navajo Sandstone is a known fresh water aquifer in many parts of the state. In the San Rafael Swell area, the quality of the Navajo Sandstone aquifer generally becomes poorer with increased depth. The proposed well is expected to penetrate the Navajo Sandstone. The operator expects the Navajo Sandstone to be water saturated and the proposed intermediate casing and cementing program should adequately protect this zone as necessary.

Ammon McDonald	10/10/2012
APD Evaluator	**Date / Time**

Surface Statement of Basis

On-site evaluation conducted September 25, 2012. In attendance: Bart Kettle-Division of Oil, Gas & Mining (DOGM), Mike McCandless-Emery County Economic Development, Mark Austin-Surface owner, Mike Brown-CEP H&B Consultants

As proposed the project area is in close proximity to permanent residences. Nuisance complaints regarding drilling activity are a potential conflict. Emery County expressed multiple concerns regarding the management of nuisance issues. A daylight drilling program may limit noise conflicts. In the event a 24 hour drilling program is chosen, traffic to the project site should be limited between 8 pm and 7 am.

Fresh water should be applied daily to the access road and well pad to control dust. Portions of access road in close proximity to permanent residences my require fresh water applications multiple times each day.

Strict quality control should be implemented for all fluids used for the drilling and completion at this site. Biocide agents should be mixed with fluids to prevent the formation

RECEIVED: October 15, 2012

of H2S currently and into the future.

Emery County requires application with the counties building and zoning department: Individual Gas/ Oil Well (Level I Permit) must be submitted and approved prior to drilling.

A Highway Road Encroachment Permit will be require for a change of use at access road intersection with HWY 155. Encroachment permit should be secured from Utah Department of Transportation.

A geomembrane liner with a minimum thickness of 12 mils shall be installed and maintained in reserve pit. Geomembrane liner shall consist of a string reinforced impervious synthetic material, resistant to hydrocarbons, salts and alkaline solutions.

It is recommended a 20' cattle guard with panel gates be installed at entrance to HWY 155 and at property boundary between Mr. Austin and Mr. Jensen. Cattle guard gate assembly should be installed with enough set back to allow trucks leaving HWY 155 a safe parking spot while gates are being opened or closed. Trees removed for construction of access should be removed from property so as not to interfere with agriculture practices.

Bart Kettle	9/25/2012
Onsite Evaluator	**Date / Time**

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A geomembrane liner with a minimum thickness of 12 mils shall be installed and maintained. Geomembrane liner shall consist of a string reinforced impervious synthetic material, resistant to hydrocarbons, salts and alkaline solutions.
Surface	Fresh water should be applied daily to the access road and well pad to control dust.
Surface	Applicable state and county permits shall be secured prior to initiating construction or drilling activity.

RECEIVED: October 15, 2012

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 8/27/2012
API NO. ASSIGNED: 43015500030000
WELL NAME: Tully 16-9-36D
OPERATOR: WHITING OIL & GAS CORPORATION (N2680)
PHONE NUMBER: 307 237-2310
CONTACT: Larry Brown

PROPOSED LOCATION: NWNW 36 160S 090E
Permit Tech Review: ☑

SURFACE: 0860 FNL 0856 FWL
Engineering Review: ☑

BOTTOM: 0860 FNL 0856 FWL
Geology Review: ☑

COUNTY: EMERY
LATITUDE: 39.39420
LONGITUDE: -110.86832
UTM SURF EASTINGS: 511339.00
NORTHINGS: 4360531.00
FIELD NAME: WILDCAT
LEASE TYPE: 3 - State
LEASE NUMBER: ML-52222
PROPOSED PRODUCING FORMATION(S): MANNING CANYON
SURFACE OWNER: 4 - Fee
COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

- ☑ **PLAT**
- ☑ **Bond:** STATE - RLB 0004585
- ☐ **Potash**
- ☐ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ☑ **Water Permit:** Municipal Water from Elmo
- ☑ **RDCC Review:** 2012-10-15 00:00:00.0
- ☑ **Fee Surface Agreement**
- ☐ **Intent to Commingle**

Commingling Approved

LOCATION AND SITING:

- ☐ **R649-2-3.**

Unit:

- ☐ **R649-3-2. General**
- ☐ **R649-3-3. Exception**
- ☑ **Drilling Unit**

Board Cause No: R649-3-2
Effective Date:
Siting:

- ☐ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:
5 - Statement of Basis - bhill
21 - RDCC - dmason
23 - Spacing - dmason
25 - Surface Casing - hmacdonald

RECEIVED: October 15, 2012

GARY R. HERBERT
Governor
GREGORY S. BELL
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Permit To Drill
****

Well Name: Tully 16-9-36D
API Well Number: 43015500030000
Lease Number: ML-52222
Surface Owner: FEE (PRIVATE)
Approval Date: 10/15/2012

Issued to:
WHITING OIL & GAS CORPORATION, 1700 Broadway, Suite 2300, Denver, CO 80290

Authority:
Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of R649-3-2. The expected producing formation or pool is the MANNING CANYON Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:
This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

General:
Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:
The Application for Permit to Drill has been forwarded to the Resource Development Coordinating Committee for review of this action. The operator will be required to comply with any applicable recommendations resulting from this review. (See attached)

This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the “Board”). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

Surface casing shall be cemented to the surface.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Additional Approvals:
The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan - contact Dustin Doucet
- Significant plug back of the well - contact Dustin Doucet
- Plug and abandonment of the well - contact Dustin Doucet

Notification Requirements:
The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well - contact Carol Daniels
  OR
  submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website
  at http://oilgas.ogm.utah.gov
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing - contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program
  - contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well - contact Dan Jarvis

Contact Information:
The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office
  801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
  801-231-8956 - after office hours

Reporting Requirements:
All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) - due within 5 days of spudding the well
- Monthly Status Report (Form 9) - due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) - due prior to implementation
- Written Notice of Emergency Changes (Form 9) - due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) - due prior to implementation
- Report of Water Encountered (Form 7) - due within 30 days after completion

• Well Completion Report (Form 8) - due within 30 days after completion or plugging

Approved By:

For John Rogers
Associate Director, Oil & Gas

CONFIDENTIAL

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company; **WHITING OIL & GAS CORPORATION**

Well Name: **TULLY 16-9-36D**

Api No: **43-015-50003** Lease Type **STATE**

Section **36** Township **16S** Range **09E** County **EMERY**

Drilling Contractor **PETE MARTIN DRLG** RIG # **16**

SPUDDED:

Date **11/30/2012**

Time **1:00 PM**

How **DRY**

Drilling will Commence:

Reported by **CHRIS BLODGETT**

Telephone # **(406) 647-2110**

Date **11/30/2012** **Signed** **CHD**

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: Whiting Oil & Gas Corporation

Operator Account Number: N 2680

Address: 1700 Broadway, Suite 2300

city Denver

state CO zip 80290

Phone Number: (303) 390-4095

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4301550003	Tully 16-9-36D		NWNW	36	16S	9E	Emery
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
A	New	18859	12/7/2012			1-9-2013	
Comments: mncyn							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
Comments:							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
Comments:							

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

RECEIVED
JAN 04 2013
Div. of Oil, Gas & Mining

Peggy Butler
Name (Please Print)

Signature

Acctg Tech
Title

1/3/13
Date

(5/2000)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-52222

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Tully 16-9-36D

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER:
43015500030000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER:
303 390-4095 Ext

9. FIELD and POOL or WILDCAT:
WILDCAT

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0860 FNL 0856 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NWNW Section: 36 Township: 16.0S Range: 09.0E Meridian: S

COUNTY:
EMERY

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 2/20/2013	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: Change of Drilling Plans

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Whiting Oil and Gas Corporation is requesting a change of drilling plans to drill a casing exit horizontal lateral out of the subject well. The horizontal will target the Moenkopi Formation. The well will be drilled as follows: Also see attached drilling, directional plans and plat) KOP: 6,305'MD & TVD. Horizontal BHL: 660' FSL & 1,980' FEL, SWSE Section 36-T16S-R9W. A 4-1/2", 11.6#, L-80 grade liner will be set from 6,105' to 11,118' MD. Attached are the following documents for this request: Lease set-back affidavit, Drilling and Directional Plans, Horizontal well plat, Casing summary, existing cementing summaries for surface,intermediate and production casing strings.

Approved by the Utah Division of Oil, Gas and Mining

Date: February 13, 2013

By: Dark K Quist

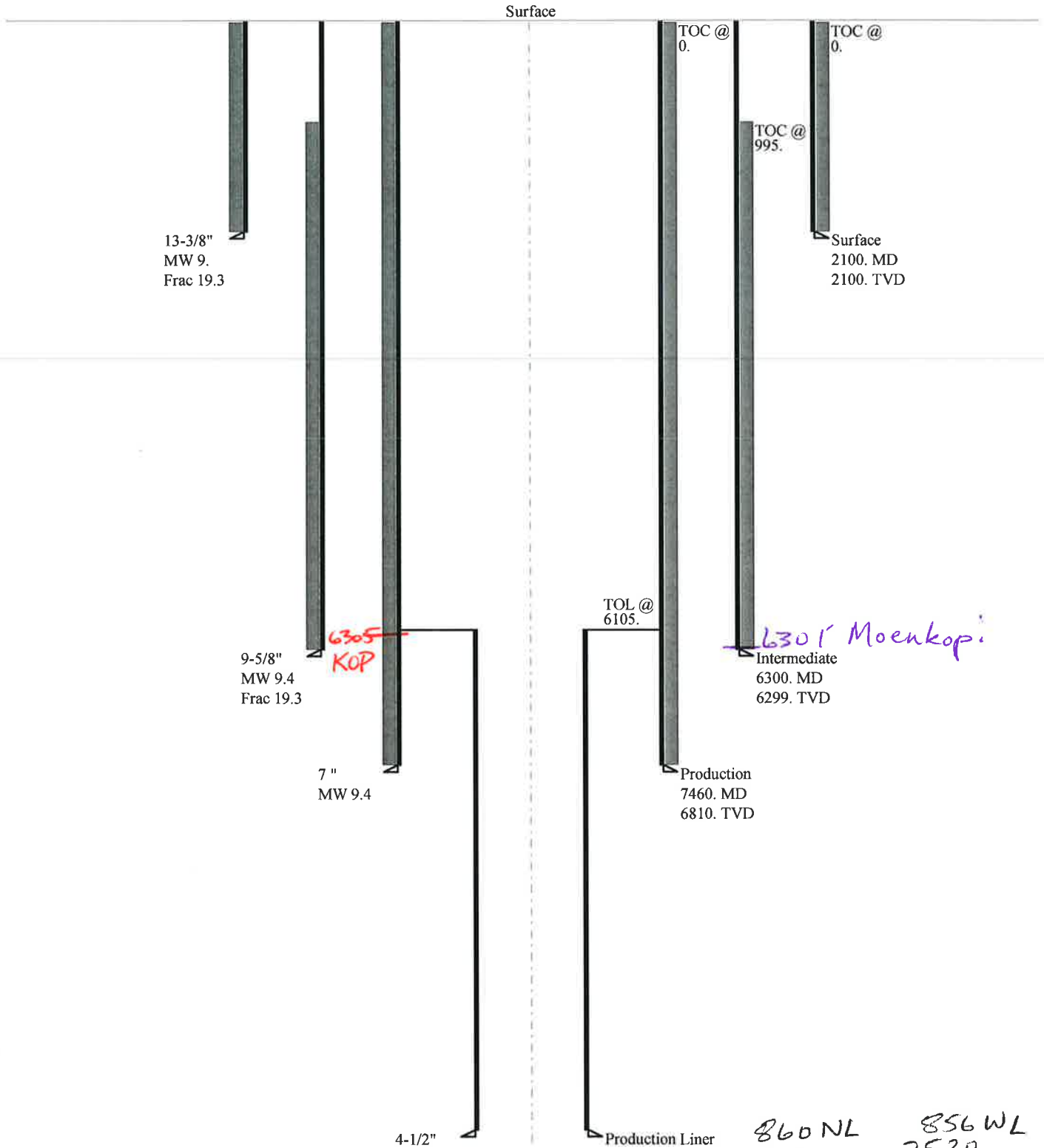
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Scott Webb	303 390-4095	Regulatory & Permitting Manager

SIGNATURE	DATE
N/A	1/18/2013

RECEIVED: Jan. 18, 2013

43015500030000 Tully 16-9-36DrevH

Casing Schematic



860 NL
- 3760
4620
5297

856 WL
2520
3376
5306

677 FSL 1930 FEL

Well name:	**43015500030000 Tully 16-9-36DrevH**
Operator:	**WHITING OIL & GAS CORPORATION**
String type:	Production Liner
Project ID:	43-015-50003
Location:	EMERY COUNTY

Design parameters:

Collapse
Mud weight: 9.400 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 1,827 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 3,325 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 6,782 ft

Environment:
H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 169 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,000 ft

Liner top: 6,105 ft
Directional Info - Build & Hold
Kick-off point 6305 ft
Departure at shoe: 4625 ft
Maximum dogleg: 11 °/100ft
Inclination at shoe: 90 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	5019	4.5	11.60	L-80	LT&C	6810	11119	3.875	23254

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	3325	6350	1.910	3325	7780	2.34	8.2	212	25.72 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: February 13,2013
Salt Lake City, Utah

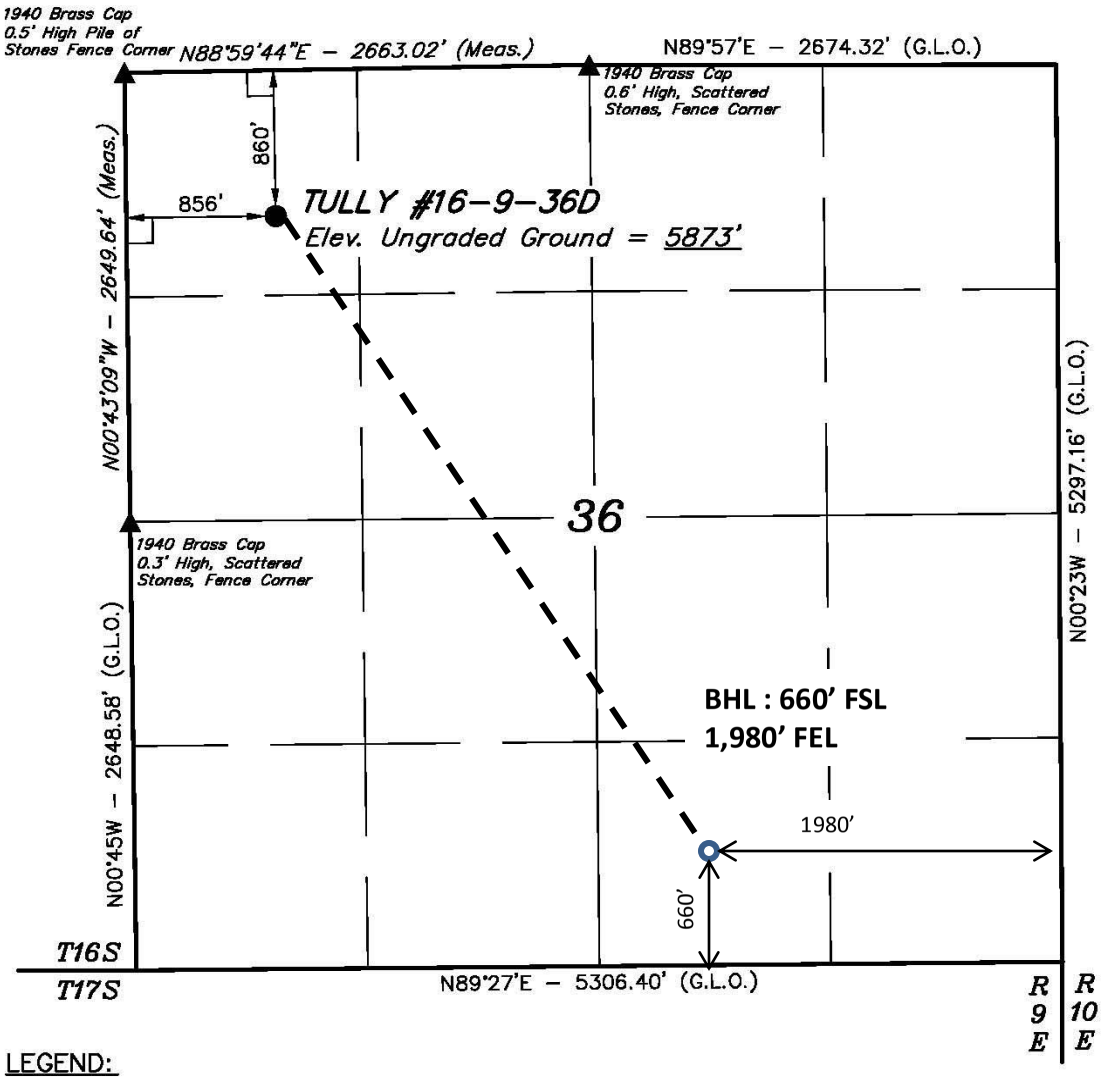
Remarks:
For this liner string, the top is rounded to the nearest 100 ft.Collapse is based on a vertical depth of 6810 ft, a mud weight of 9.4 ppg The Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

Sundry Number: 33943 API Well Number: 43015500030000

T16S, R9E, S.L.B.&M.



LEGEND:

- = 90° SYMBOL
- ● = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

NAD 83 (SURFACE LOCATION)	
LATITUDE	39°23'39.19" (39.394214)
LONGITUDE	110°52'05.93" (110.868314)
NAD 27 (SURFACE LOCATION)	
LATITUDE	39°23'39.30" (39.394250)
LONGITUDE	110°52'03.34" (110.867594)

WHITING OIL & GAS CORP.

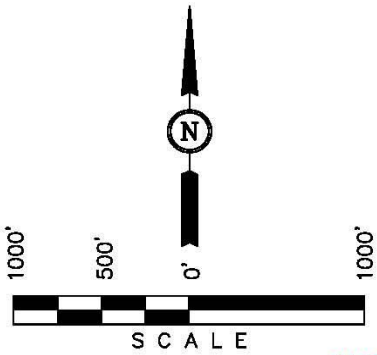
Well location, TULLY #16–9–36D, located as shown in the NW 1/4 NW 1/4 of Section 36, T16S, R9W, S.L.B&M., Emery County, Utah.

BASIS OF ELEVATION

SPOT ELEVATION LOCATED AT THE NORTHWEST CORNER OF SECTION 36, T16S, R9E, S.L.B.&M., TAKEN FROM THE ELMO QUADRANGLE, UTAH, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5991 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

REVISED: 08–01–2012

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST – VERNAL, UTAH 84078
(435) 789–1017

SCALE	DATE SURVEYED:	DATE DRAWN:
1" = 1000'	12–20–11	12–23–11
PARTY: B.B. J.G. B.L.B.	REFERENCES: G.L.O. PLAT	
WEATHER: COLD	FILE: WHITING OIL & GAS CORP.	

AFFIDAVIT Distance to Lease Lines

Tully 15-11-18E

Well Name: Tully 16-9-36D Horizontal Casing Exit

Location: SHL 860' FNL & 856' FWL

BHL 1980' FSL & 660' FEL

Section 36-T16S-R9E

County: Emery County, Utah

Permit No.: API# 43-015-50030

The Subject well horizontal wellbore will be a minimum of 660 feet away from all lease lines in Section 36-T16S-R9E, Emory County, Utah

Dated: January 18, 2013

Scott M. Webb-Regulatory & Permitting Manager

Whiting Oil and Gas Corporation

ACKNOWLEDGEMENT

STATE OF COLORADO)

) ss.

COUNTY OF DENVER)

On this 18th day of January, 2013, before me, a Notary Public, personally appeared Scott M. Webb, who being by me duly sworn, did say that he is Regulatory & Permitting Manager of whiting Oil and Gas Corporation, and that the foregoing instrument was executed by him on behalf of said company as its free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed by Notarial Seal the day and year first above written.

(SEAL)

Diane L Blair

NOTARY PUBLIC

My Commission Expires: My Commission Expires 4/27/2016

Whiting Oil & Gas Corporation
Tully 16-9-36D Drill Plan
Horizontal – Moenkopi Well
January 18, 2013

Summary:
The Tully 16-9-36D well will be a horizontal well in the Moenkopi formation. The well wase drilled to 7,480' TD and 7" casing was run and cemented. A whip-stock will be set and a window cut in the 7" casing at 6,305' MD. A 6-1/8" curve will be built to land the in the Moenkopi at 6,810' TVD. The lateral will be drilled with a 6-1/8" bit to TD at 11,118' MD. 4-1/2" casing with swell packers will be run in the lateral for completion.

Surface Location: 36-T16S-R9E
860' FNL 856' FWL
Emery County, Utah

Bottomhole Location: 36-T16S-R9E
660' FSL 1980' FEL
Weld County, Colorado

DRILLING PROGRAM

1. ESTIMATED TOPS OF GEOLOGICAL MARKERS:

Ground Level 5,871' Estimated KB 5,893' (22')

Formation	MD	Lithology	Hazard
Mancos	Surface	SH-SS	
Ferron	1,049'	SS-COAL-SH	
Dakota	1,939'	SS-SI-SH	
Chinle	5,980'	SS-SH	
Moenkopi	6,301'	SS-SH-LS	
Horizontal Target (TVD)	6,810'	SS-SH-LS	
TD Niobrara Horizontal (MD)	11,118'		

2. DIRECTIONAL PLANS

KOP:	6,305' MD, 6,305' TVD
BUILD RATE - AZIMUTH:	11°/100', 146.54° Azimuth
END OF BUILD:	7,108' MD, 6,810' TVD at 90° Inc and 146.54° Azimuth
TD LATERAL:	11,117' MD, 6,810' TVD at 90.00° Inc and 146.54° Azimuth
BH LOCATION:	660' FSL & 1980' FEL Sec 36 T16S R9E

See attached Directional Proposal Listings for more details.

RECEIVED: Jan. 18, 2013

3. PRESSURE CONTROL EQUIPMENT

A. Type: 13-5/8" 5,000 psi double gate hydraulic BOP with 13-5/8" 5,000 psi annular preventer with 5,000 psi Casinghead and 5,000 psi Tubinghead.

B. Testing Procedure:

The annular preventer will be pressure tested to 50% of stack rated working pressure for ten (10) minutes or until provisions of test are met, whichever is longer. The BOP, choke manifold, and related equipment will be pressure tested to approved BOP stack working pressure (if isolated from surface casing by a test plug) or to 70% of surface casing internal yield strength (if BOP is not isolated by a test plug). Pressure will be maintained for ten (10) minutes or until the requirements of the test are met, whichever is longer. At a minimum, the Annular and Blow-Out Preventer pressure tests will be performed:

1. When the BOPE is initially installed;
2. Whenever any seal subject to test pressure is broken;
3. Following related repairs; and
4. At thirty (30) day intervals.

Annular will be function tested weekly, and pipe & blind rams activated each trip, but not more than once per day. All BOP drills & tests will be recorded in IADC driller's log.

C. Choke Manifold Equipment:

All choke lines will be straight lines whenever possible at turns, tee blocks will be used or will be targeted with running tees, and will be anchored to prevent whip and vibration.

D. Accumulator:

Accumulator will have sufficient capacity to open hydraulically-controlled choke line valve (if so equipped), close all rams plus annular preventer, and retain a minimum of 200 psi above precharge on the closing manifold without the use of closing unit pumps. The fluid reservoir capacity will be double accumulator capacity and the fluid level will be maintained at manufacturer's recommendations. Accumulator precharge pressure test will be conducted prior to connecting the closing unit to the BOP stack.

E. Miscellaneous Information:

Choke manifold and BOP extension rods with hand wheels will be located outside rig sub-structure. Hydraulic BOP closing unit will be located at least twenty-five (25) feet from the wellhead but readily accessible to the driller. Exact locations and configurations of the hydraulic BOP closing unit will depend upon the particular rig contracted to drill this hole.

A flare line will be installed after the choke manifold with the discharge point of the flare line to a separate pit located at least 125 feet away from the wellbore and any existing production facilities.

A volume monitoring system with alarms will be used to monitor pit gains/losses along with visual backup.

RECEIVED: Jan. 18, 2013

4. PROPOSED CASING PROGRAM

A. Casing Program: All New

Hole Size	Casing Size	Wt./Ft.	Grade	Joint	Coupling OD	Burst (psi)	Collapse (psi)	Tension (Body/Joint) (klbs)	Depth Set (md)
17-1/2"	13-3/8"	54.50	J-55	ST&C	14.375"	2,730	1,130	853/514	0 – 2,081'
12-1/4"	9-5/8"	47	L-80	LT&C	10.625"	6,870	4,750	1,086/893	0 – 6,294'
8-1/2"	7"	29	L-80	LT&C	7.656"	8,160	7,020	676/587	0 – 7,460'
6-1/8"	4-1/2"	11.6	L-80	LT&C	5"	7,780	6,350	267/212	6,105' – 11,118'

Existing 13-3/8" surface casing has centralizers as follows:

1. Install a bowspring centralizer at the first and second collars above the guide shoe.
2. Install one bowspring centralizer every third joint above the second collar.
3. Centralizer and basket placed 120' below the surface (or at the bottom of the third joint below the surface).
4. Centralizer and basket placed 80' below the surface (or at the bottom of the second joint below the surface).

Existing -5/8" intermediate casing has centralizers as follows:

1. Install a bowspring centralizer at the first and second collars above the guide shoe.
2. After that centralize every third joint to surface with single bow spring centralizers

Existing 7" production casing has centralizers as follows:

1. Install a bowspring centralizer at the first and second collars above the guide shoe.
2. After that centralize every third joint to surface with single bow spring centralizers.

A 4-1/2" Liner to be run with Swelling Packers and Frac Sleeves

Casing string(s) will be pressure tested to 0.22 psi/foot of casing string length or 1500 psi, whichever is greater (not to exceed 70% of the internal yield strength of the casing), after cementing and prior to drilling out from under the casing shoe.

B. Casing Design Parameters:

Existing Surface Casing

Interval	Size	Wt	Grade	Burst (psi)[a]/SF	Collapse (psi)[b]/SF	Tension (klb)[c]/SF
0' – 2,081'	13-3/8"	54.50 lb/ft	J-55	2,730/1.89	1,130/1.16	514/5.25

a. based on frac gradient at shoe of 14.0 ppg
b. based on full evacuation with 9.0 ppg fluid on backside
c. based on casing string weight in 9.0 ppg mud
String Weight in 9.0 ppg mud ≈ 97,831 lbs

Existing Intermediate Casing

Interval	Size	Wt	Grade	Burst (psi)[a]/SF	Collapse (psi)[b]/SF	Tension (klb)[c]/SF
0' – 6,294'	9-5/8"	47.0 lb/ft	L-80	6,870/4.92	4,750/1.54	893/3.52

a. based on frac gradient at shoe of 14.0 ppg
b. based on full evacuation with 9.4 ppg pore pressure on backside
c. based on casing string weight in 9.4 ppg mud
String Weight in 9.4 ppg mud ≈ 253,365 lbs.

RECEIVED: Jan. 18, 2013

Existing **Production Casing**

Interval	Size	Wt	Grade	Burst (psi)[a]/SF	Collapse (psi)[b]/SF	Tension (klb)[c]/SF
0' – 7,460'	7"	29.0 lb/ft	L-80	8,160/1.26	7,020/1.93	587/3.17

a. based on 6,500 psi frac pressure.
b. based on full evacuation with 9.4 ppg pore pressure on backside
c. based on casing string weight in 9.4 ppg mud
String Weight in 9.4 ppg mud ≈ 185,293 lbs.

Proposed Production Liner

Interval	Size	Wt	Grade	Burst (psi)[a]/SF	Collapse (psi)[b]/SF	Tension (klb)[c]/SF
6,105' – 11,118'	4-1/2"	11.6 lb/ft	L-80	7,780/1.20	6,350/1.91	212/4.26

a. based on 6,500 psi frac pressure.
b. based on full evacuation with 9.4 ppg pore pressure on backside
c. based on casing string weight in 9.4 ppg mud
String Weight in 9.4 ppg mud ≈ 49,805 lbs.

5. Existing CEMENTING PROGRAM

Existing Surface Casing – 13-3/8" Casing: TOC Surface, (100% Excess)

CASING	SLURRY	FT. of FILL	CEMENT TYPE	SXS	XC (%)	WEIGHT (ppg)	YIELD (ft^3/sx)
13-3/8"	Lead	1,581'	Lead Cement Rockies LT; - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) - 0.25 lbm/sk Kwik Seal (Lost Circulation Additive)	1070	100	11.5	2.94
13-3/8"	Tail	500'	Tail Cement Premium Cement; - 94 lbm/sk Premium Cement (Cement) - 2% Calcium Chloride (Accelerator) - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)	440	100	15.6	1.20

A cement top job is required if cement fallback is greater than 10' below ground level.

RECEIVED: Jan. 18, 2013

Existing Intermediate Casing – 9-5/8" Casing: TOC Surface, (Stage Tool at 3,300' – Stage_1 - 50% Excess, Stage_2 – 50% Excess)

CASING	SLURRY	FT. of FILL	CEMENT TYPE	SXS	XC (%)	WEIGHT (ppg)	YIELD (ft^3/sx)
9-5/8"	Stage_1 – Lead	1,500'	First Stage Lead Cement ECONOCEM; - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) - 1 % HR-5 (Retarder) - 0.2 % Super CBL (Expander)	700	50	12.2	2.16
9-5/8"	Stage_1 – Tail	1,500'	First Stage Tail Cement EXTENDACEM; - 0.5 % HR-5 (Retarder) - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) - 3 lbm/sk Gilsonite (Lost Circulation Additive)	350	50	14.2	1.29
9-5/8"	Stage_2 – Lead	3,300'	Second Stage Primary Cement ECONOCEM; - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) - 0.5 % HR-5 (Retarder) - 0.2 % Super CBL (Expander)	920	50	12.2	2.15

Existing Production Casing – 7" Casing: TOC Surface, (35% Excess)

CASING	SLURRY	FT. of FILL	CEMENT TYPE	SXS	XC (%)	WEIGHT (ppg)	YIELD (ft^3/sx)
7"	Lead	6,294'	Lead Cement ECONOCEM; - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) - 0.8 % HR-5 (Retarder) - 0.2 % Super CBL (Expander)	435	35	12.2	2.15
7"	Tail	1,186'	Tail Cement EXTENDACEM; - 0.4 % HR-5 (Retarder) - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)	230	35	14.2	1.29

6. MUD PROGRAM

Depth (MD)	Mud System	MW	PV	YP	FL
0 -2,081'	Water, Gel/Lime Sweeps	8.4 – 9.0	2 - 20	2 - 18	NC
2,081' – 6,294'	3% KCL Water/Polymer	8.4 – 9.4	10 - 28	6 - 18	6 - 10
6,294' – 7,480'	3% KCL Water/Polymer	8.4 – 9.4	14 - 32	10 - 22	4 - 10
6,305' – 11,118'	3% KCL Water/Polymer	8.4 – 9.4	14 - 32	10 - 22	4 - 10

RECEIVED: Jan. 18, 2013

7. EVALUATION PROGRAM (in vertical bore)

Cores: 60’ of core planned from 6,337’ to 6,397’.
60’ of core planned from 9,664’ to 9,754’.

DST: None planned

Surveys: Deviation surveys every 500’ to TD in the surface, intermediate and production holes.

Mud Logger:
Samples: 30’ samples surface to TD

Open Hole Logging Program: Triple Combo 7,480’ to Surface

8. ABNORMAL CONDITIONS

No abnormal pressures are anticipated. No H_2S gas is anticipated.

Anticipated bottom hole pressure is 3,239 psi (0.433 psi/ft) at 7,480’ TVD in the Humbug and the maximum anticipated surface pressure equals approximately 1,593 psi (anticipated bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot of hole).

9. ANTICIPATED STARTING DATES

A. Anticipated Starting Dates:

Drilling work startup: February 2013

Original Spud: December 7, 2012

Duration: 25 – 35 days

RECEIVED: Jan. 18, 2013

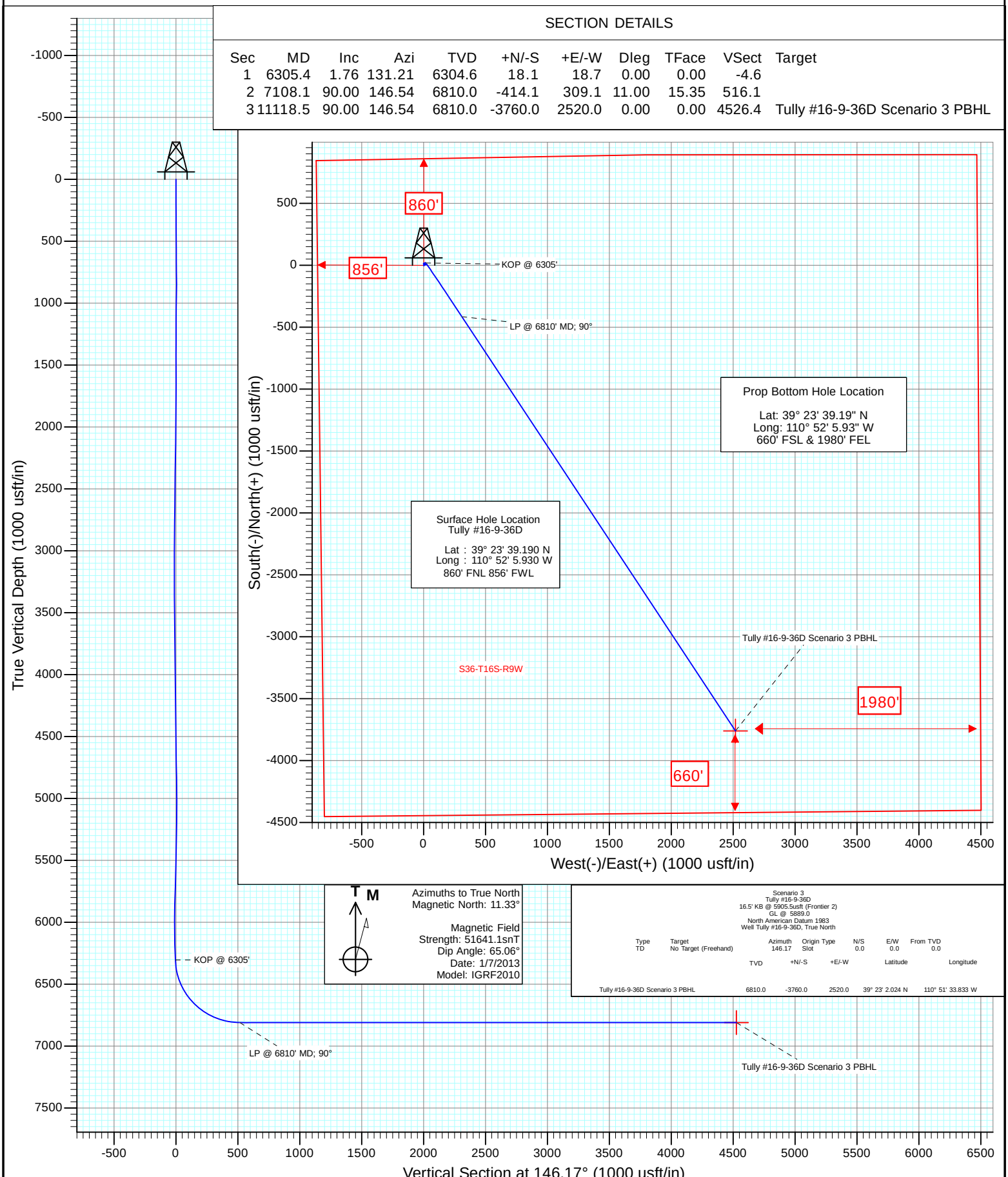
Whiting Petroleum Corporation

Project: Emery County, UT
Site: S36-T16S-R9W
Well: Tully #16-9-36D
Wellbore: CURVE-LATERAL
Design: Scenario 3

CATHEDRAL

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	6305.4	1.76	131.21	6304.6	18.1	18.7	0.00	0.00	-4.6	
2	7108.1	90.00	146.54	6810.0	-414.1	309.1	11.00	15.35	516.1	
3	11118.5	90.00	146.54	6810.0	-3760.0	2520.0	0.00	0.00	4526.4	Tully #16-9-36D Scenario 3 PBHL



Azimuths to True North
Magnetic North: 11.33°

Magnetic Field
Strength: 51641.1snT
Dip Angle: 65.06°
Date: 1/7/2013
Model: IGRF2010

Scenario 3
Tully #16-9-36D
16.5' KB @ 5905.5usft (Frontier 2)
GL @ 5889.0
North American Datum 1983
Well Tully #16-9-36D, True North

Type	Target	Azimuth	Origin Type	N/S	E/W	From TVD
TD	No Target (Freehand)	146.17	Slot	0.0	0.0	0.0

	TVD	+N/-S	+E/-W	Latitude	Longitude
Tully #16-9-36D Scenario 3 PBHL	6810.0	-3760.0	2520.0	39° 23' 2.024 N	110° 51' 33.833 W

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Tully #16-9-36D
Company:	Whiting Petroleum Corporation	**TVD Reference:**	16.5' KB @ 5905.5usft (Frontier 2)
Project:	Emery County, UT	**MD Reference:**	16.5' KB @ 5905.5usft (Frontier 2)
Site:	S36-T16S-R9W	**North Reference:**	True
Well:	Tully #16-9-36D	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	CURVE-LATERAL		
Design:	Scenario 3		

Project Emery County, UT

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Utah Central Zone		

Site S36-T16S-R9W

Site Position:		**Northing:**	6,948,708.81 usft	**Latitude:**	39° 23' 39.190 N
From:	Lat/Long	**Easting:**	1,818,931.37 usft	**Longitude:**	110° 52' 5.930 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16"	**Grid Convergence:**	0.40 °

Well Tully #16-9-36D

Well Position	**+N/-S**	0.0 usft	**Northing:**	6,948,708.77 usft	**Latitude:**	39° 23' 39.190 N
	+E/-W	0.0 usft	**Easting:**	1,818,931.37 usft	**Longitude:**	110° 52' 5.930 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	5,889.0 usft

Wellbore CURVE-LATERAL

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/7/2013	11.33	65.06	51,641

Design Scenario 3

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	6,305.4

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	146.17

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
6,305.4	1.76	131.21	6,304.6	18.1	18.7	0.00	0.00	0.00	0.00	
7,108.1	90.00	146.54	6,810.0	-414.1	309.1	11.00	10.99	1.91	15.35	
11,118.5	90.00	146.54	6,810.0	-3,760.0	2,520.0	0.00	0.00	0.00	0.00	Tully #16-9-36D Scen

RECEIVED: Jan. 18, 2013

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Tully #16-9-36D
Company:	Whiting Petroleum Corporation	**TVD Reference:**	16.5' KB @ 5905.5usft (Frontier 2)
Project:	Emery County, UT	**MD Reference:**	16.5' KB @ 5905.5usft (Frontier 2)
Site:	S36-T16S-R9W	**North Reference:**	True
Well:	Tully #16-9-36D	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	CURVE-LATERAL		
Design:	Scenario 3		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft	Build Rate (°/100u	Comments / Formations
6,305.4	1.76	131.21	6,304.6	18.1	18.7	-4.6	0.00	0.00	KOP @ 6305'
6,400.0	12.11	144.37	6,398.4	9.0	25.6	6.8	11.00	10.94	
6,500.0	23.11	145.45	6,493.6	-15.8	42.9	37.0	11.00	11.00	
6,600.0	34.11	145.86	6,581.2	-55.3	69.8	84.8	11.00	11.00	
6,700.0	45.11	146.08	6,658.1	-108.0	105.4	148.4	11.00	11.00	
6,800.0	56.11	146.23	6,721.5	-172.1	148.4	225.6	11.00	11.00	
6,900.0	67.11	146.35	6,769.0	-245.2	197.1	313.4	11.00	11.00	
7,000.0	78.11	146.45	6,798.8	-324.5	249.9	408.7	11.00	11.00	
7,100.0	89.11	146.54	6,810.0	-407.3	304.7	507.9	11.00	11.00	
7,108.1	90.00	146.54	6,810.0	-414.1	309.1	516.1	11.00	11.00	LP @ 6810' MD; 90°
7,200.0	90.00	146.54	6,810.0	-490.7	359.8	607.9	0.00	0.00	
7,300.0	90.00	146.54	6,810.0	-574.1	414.9	707.9	0.00	0.00	
7,400.0	90.00	146.54	6,810.0	-657.6	470.0	807.9	0.00	0.00	
7,500.0	90.00	146.54	6,810.0	-741.0	525.2	907.9	0.00	0.00	
7,600.0	90.00	146.54	6,810.0	-824.4	580.3	1,007.9	0.00	0.00	
7,700.0	90.00	146.54	6,810.0	-907.9	635.4	1,107.9	0.00	0.00	
7,800.0	90.00	146.54	6,810.0	-991.3	690.5	1,207.9	0.00	0.00	
7,900.0	90.00	146.54	6,810.0	-1,074.7	745.7	1,307.9	0.00	0.00	
8,000.0	90.00	146.54	6,810.0	-1,158.2	800.8	1,407.9	0.00	0.00	
8,100.0	90.00	146.54	6,810.0	-1,241.6	855.9	1,507.9	0.00	0.00	
8,200.0	90.00	146.54	6,810.0	-1,325.0	911.1	1,607.9	0.00	0.00	
8,300.0	90.00	146.54	6,810.0	-1,408.5	966.2	1,707.9	0.00	0.00	
8,400.0	90.00	146.54	6,810.0	-1,491.9	1,021.3	1,807.9	0.00	0.00	
8,500.0	90.00	146.54	6,810.0	-1,575.3	1,076.4	1,907.9	0.00	0.00	
8,600.0	90.00	146.54	6,810.0	-1,658.7	1,131.6	2,007.9	0.00	0.00	
8,670.1	90.00	146.54	6,810.0	-1,717.2	1,170.2	2,078.0	0.00	0.00	Tully #16-9-36D Scenario 1 PBHL
8,700.0	90.00	146.54	6,810.0	-1,742.2	1,186.7	2,107.9	0.00	0.00	
8,800.0	90.00	146.54	6,810.0	-1,825.6	1,241.8	2,207.9	0.00	0.00	
8,900.0	90.00	146.54	6,810.0	-1,909.0	1,297.0	2,307.9	0.00	0.00	
9,000.0	90.00	146.54	6,810.0	-1,992.5	1,352.1	2,407.9	0.00	0.00	
9,100.0	90.00	146.54	6,810.0	-2,075.9	1,407.2	2,507.9	0.00	0.00	
9,200.0	90.00	146.54	6,810.0	-2,159.3	1,462.3	2,607.9	0.00	0.00	
9,300.0	90.00	146.54	6,810.0	-2,242.8	1,517.5	2,707.9	0.00	0.00	
9,400.0	90.00	146.54	6,810.0	-2,326.2	1,572.6	2,807.9	0.00	0.00	
9,500.0	90.00	146.54	6,810.0	-2,409.6	1,627.7	2,907.9	0.00	0.00	
9,600.0	90.00	146.54	6,810.0	-2,493.1	1,682.9	3,007.9	0.00	0.00	
9,700.0	90.00	146.54	6,810.0	-2,576.5	1,738.0	3,107.9	0.00	0.00	
9,800.0	90.00	146.54	6,810.0	-2,659.9	1,793.1	3,207.9	0.00	0.00	
9,900.0	90.00	146.54	6,810.0	-2,743.4	1,848.2	3,307.9	0.00	0.00	
10,000.0	90.00	146.54	6,810.0	-2,826.8	1,903.4	3,407.9	0.00	0.00	
10,100.0	90.00	146.54	6,810.0	-2,910.2	1,958.5	3,507.9	0.00	0.00	
10,200.0	90.00	146.54	6,810.0	-2,993.7	2,013.6	3,607.9	0.00	0.00	
10,300.0	90.00	146.54	6,810.0	-3,077.1	2,068.8	3,707.9	0.00	0.00	
10,400.0	90.00	146.54	6,810.0	-3,160.5	2,123.9	3,807.8	0.00	0.00	
10,500.0	90.00	146.54	6,810.0	-3,243.9	2,179.0	3,907.8	0.00	0.00	
10,600.0	90.00	146.54	6,810.0	-3,327.4	2,234.1	4,007.8	0.00	0.00	
10,700.0	90.00	146.54	6,810.0	-3,410.8	2,289.3	4,107.8	0.00	0.00	
10,730.2	90.00	146.54	6,810.0	-3,436.0	2,305.9	4,138.0	0.00	0.00	Tully #16-9-36D Scenario 2 PBHL
10,800.0	90.00	146.54	6,810.0	-3,494.2	2,344.4	4,207.8	0.00	0.00	
10,900.0	90.00	146.54	6,810.0	-3,577.7	2,399.5	4,307.8	0.00	0.00	
11,000.0	90.00	146.54	6,810.0	-3,661.1	2,454.7	4,407.8	0.00	0.00	
11,100.0	90.00	146.54	6,810.0	-3,744.5	2,509.8	4,507.8	0.00	0.00	

RECEIVED: Jan. 18, 2013

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Tully #16-9-36D
Company:	Whiting Petroleum Corporation	**TVD Reference:**	16.5' KB @ 5905.5usft (Frontier 2)
Project:	Emery County, UT	**MD Reference:**	16.5' KB @ 5905.5usft (Frontier 2)
Site:	S36-T16S-R9W	**North Reference:**	True
Well:	Tully #16-9-36D	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	CURVE-LATERAL		
Design:	Scenario 3		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft	Build Rate (°/100u	Comments / Formations
11,118.5	90.00	146.54	6,810.0	-3,760.0	2,520.0	4,526.4	0.00	0.00	TD at 11118.5 - Tully #16-9-36D Scenario 3 PBH

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Tully #16-9-36D Scenari - plan hits target center - Circle (radius 1,980.0)	0.00	0.00	6,810.0	-3,760.0	2,520.0	6,944,966.66	1,821,477.86	39° 23' 2.024 N	110° 51' 33.833 W
Tully #16-9-36D Scenari - plan misses target center by 1827.9usft at 10730.2usft MD (6810.0 TVD, -3436.0 N, 2305.9 E) - Point	0.00	0.00	6,810.0	-2,428.3	3,831.0	6,946,307.58	1,822,779.43	39° 23' 15.185 N	110° 51' 17.133 W
Tully #16-9-36D PBHL - plan misses target center by 1320.1usft at 11118.5usft MD (6810.0 TVD, -3760.0 N, 2520.0 E) - Point	0.00	0.00	6,810.0	-3,748.0	3,840.0	6,944,987.98	1,822,797.75	39° 23' 2.141 N	110° 51' 17.021 W
Tully #16-9-36D Scenari - plan misses target center by 3169.4usft at 8670.1usft MD (6810.0 TVD, -1717.2 N, 1170.2 E) - Point	0.00	0.00	6,810.0	30.0	3,814.5	6,948,765.71	1,822,745.57	39° 23' 39.483 N	110° 51' 17.338 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
6,305.4	6,304.6	18.1	18.7	KOP @ 6305'
7,108.1	6,810.0	-414.1	309.1	LP @ 6810' MD; 90°
11,118.5	6,810.0	-3,760.0	2,520.0	TD at 11118.5

Casing Summary

Well Name: TULLY 16-9-36D

Well Information

API Number	WPC ID	Field Name	KB-Grd (ft)	Original Spud Date
43015500030000	1UT029802	Wildcat	16.50	12/7/2012

Lot	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Township	Twnshp...	Range	Rng E/...	County	State	Well Configuration Type
	NW	NW			36	16	S	9	E	Emery	UT	Vertical

Wellbore Sections

Section Des	Size (in)	Act Top (ftKB)	Act Btm (ftKB)
Conductor	26	16.5	96.5
Surface	17 1/2	96.5	2,122.0
Intermediate	12 1/4	2,122.0	6,315.0
Production	8 1/2	6,315.0	7,480.0

Casing

Conductor Pipe, 96.5ftKB

Comment

Run Date	Set Depth (ftKB)	Set Tension (kips)	OD (in)	Centralizers	Scratchers
12/1/2012	96.5		20		

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top (ftKB)	Btm (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
2	Casing Joints	20	19.124	94.00	H-40		16.5	96.5	80.00		520.0

Surface Csg, 2,081.2ftKB

Comment

Run Date	Set Depth (ftKB)	Set Tension (kips)	OD (in)	Centralizers	Scratchers
12/12/2012	2,081.2		13 3/8	Bow Spring on first joint then every third	

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top (ftKB)	Btm (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
46	Casing Joints	13 3/8	12.615	54.50	J-55	ST&C	16.5	2,034.5	2,018.00		
1	Float Collar	13 3/8	12.615	54.50	J-55	ST&C	2,034.5	2,035.5	1.00		1,130.0
1	Casing Joints	13 3/8	12.615	54.50	J-55	ST&C	2,035.5	2,080.7	45.20		1,130.0
1	Shoe	13 3/8	12.615	54.50	J-55		2,080.7	2,081.2	0.50		

Intermediate Csg, 6,294.2ftKB

Comment

Run Date	Set Depth (ftKB)	Set Tension (kips)	OD (in)	Centralizers	Scratchers
12/22/2012	6,294.2		9 5/8		

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top (ftKB)	Btm (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
80	Casing Joints	9 5/8	8.681	47.00	L-80	LT&C	16.5	3,293.5	3,277.02		4,760.0
1	DV Tool	9 5/8				LT&C	3,293.5	3,296.0	2.50		
70	Casing Joints	9 5/8	8.681	47.00	L-80	LT&C	3,296.0	6,249.9	2,953.90		4,760.0
1	Float Collar	9 5/8				LT&C	6,249.9	6,251.4	1.50		
1	Casing Joints	9 5/8	8.681	47.00	L-80	LT&C	6,251.4	6,292.7	41.28		4,760.0
1	Guide Shoe	9 5/8				LT&C	6,292.7	6,294.2	1.50		

Production Csg, 7,460.0ftKB

Comment

Run Date	Set Depth (ftKB)	Set Tension (kips)	OD (in)	Centralizers	Scratchers
1/2/2013	7,460.0		7		

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top (ftKB)	Btm (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
0	Casing Joints	7	6.184	29.00	HCL-80	LT&C	16.5	16.5	0.00		
1	Landing Joint	7	6.184	29.00	HCL-80	LT&C	16.5	25.6	9.05		
1	Casing Joints	7	6.184	29.00	HCL-80	LT&C	25.6	50.2	24.67		
0	Casing Joints	7	6.184	29.00	HCL-80	LT&C	50.2	50.2	0.00		
173	Casing Joints	7	6.184	29.00	HCL-80	LT&C	50.2	7,418.0	7,367.76		
1	Float Collar	7	6.184	29.00	HCL-80	LT&C	7,418.0	7,419.0	1.00		
1	Casing Joints	7	6.184	29.00	HCL-80	LT&C	7,419.0	7,459.0	40.02		
1	Float Shoe	7	6.184	29.00	HCL-80	LT&C	7,459.0	7,460.0	1.00		

Cement Summary

Well Name: TULLY 16-9-36D

Well Information

API Number	WPC ID	Field Name	KB-Grd (ft)	Original Spud Date
43015500030000	1UT029802	Wildcat	16.50	12/7/2012

Lot	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Township	Twnshp...	Range	Rng E/...	County	State	Well Configuration Type
	NW	NW			36	16	S	9	E	Emery	UT	Vertical

Wellbores

Wellbore Name	Profile Type	Kick Off Depth (ftKB)
Original Hole	Vertical	

Section Des	Size (in)	Act Top (ftKB)	Act Btm (ftKB)
Conductor	26	16.5	96.5
Surface	17 1/2	96.5	2,122.0
Intermediate	12 1/4	2,122.0	6,315.0
Production	8 1/2	6,315.0	7,480.0

Wellheads

Type	Install Date

Conductor Cement

Cementing Start Date	Cementing End Date	Wellbore
12/1/2012 11:30	12/1/2012 12:30	Original Hole

Evaluation Method	Cement Evaluation Results
Returns to Surface	

Comment

Stage #<Stage Number?>

Top Depth (ftKB)	Bottom Depth (ftKB)	Full Return?	Vol Cement Ret (bbl)	Top Plug?	Bottom Plug?
16.5	96.5	No		No	No

Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)	Final Pump Pressure (psi)	Plug Bump Pressure (psi)

Pipe Reciprocated?	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)	Pipe Rotated?	Pipe RPM (rpm)
No			No	

Tagged Depth (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)	Drill Out Diameter (in)	Drill Out Date

Cement Summary

Well Name: TULLY 16-9-36D

Well Information

API Number	WPC ID	Field Name	KB-Grd (ft)	Original Spud Date
43015500030000	1UT029802	Wildcat	16.50	12/7/2012

Lot	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Township	Twnshp...	Range	Rng E/...	County	State	Well Configuration Type
	NW	NW			36	16	S	9	E	Emery	UT	Vertical

Wellbores

Wellbore Name	Profile Type	Kick Off Depth (ftKB)
Original Hole	Vertical	

Section Des	Size (in)	Act Top (ftKB)	Act Btm (ftKB)
Conductor	26	16.5	96.5
Surface	17 1/2	96.5	2,122.0
Intermediate	12 1/4	2,122.0	6,315.0
Production	8 1/2	6,315.0	7,480.0

Wellheads

Type	Install Date

Surface Casing Cement

Cementing Start Date	Cementing End Date	Wellbore
12/12/2012 09:30	12/12/2012 16:00	Original Hole

Evaluation Method	Cement Evaluation Results
Returns to Surface	

Comment

Stage #1

Top Depth (ftKB)	Bottom Depth (ftKB)	Full Return?	Vol Cement Ret (bbl)	Top Plug?	Bottom Plug?
16.5	2,081.2	Yes	2.5	No	Yes

Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)	Final Pump Pressure (psi)	Plug Bump Pressure (psi)
6	1	4	385.0	385.0

Pipe Reciprocated?	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)	Pipe Rotated?	Pipe RPM (rpm)
No			No	

Tagged Depth (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)	Drill Out Diameter (in)	Drill Out Date

Spacer

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Spacer				15.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	8.34			

Preflush

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Preflush				30.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	9.20			

Spacer

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Spacer				15.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	8.34			

Cement Fluid Additives

Add	Type	Amount	Amount Units	Conc	Conc Unit
Flush		68.0	lb		

Lead Cement

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Lead Cement		1,070	Prem Lite	560.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)
16.5	1,400.0			17.83

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	11.49			

Cement Fluid Additives

Add	Type	Amount	Amount Units	Conc	Conc Unit
Kwik Seal	Lost Circulation Additive	0.25	lbm		
Celloflake	Poyl-e-flake	0.125	lbm		

Cement Summary

Well Name: TULLY 16-9-36D

Well Information

API Number	WPC ID	Field Name	KB-Grd (ft)	Original Spud Date
43015500030000	1UT029802	Wildcat	16.50	12/7/2012

Lot	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Township	Twnshp...	Range	Rng E/...	County	State	Well Configuration Type
	NW	NW			36	16	S	9	E	Emery	UT	Vertical

Tail Cement

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Tail Cement		440	Premium	94.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)
1,400.0	2,081.0			5.24

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	15.60			

Cement Fluid Additives

Add	Type	Amount	Amount Units	Conc	Conc Unit
CaCl2	Pellets			2.0	%
Cellophane Flakes	Polyflake	0.125	lbm		

Displacement

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Displacement				310.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	9.20			

Cement Summary

Well Name: TULLY 16-9-36D

Well Information

API Number	WPC ID	Field Name	KB-Grd (ft)	Original Spud Date
43015500030000	1UT029802	Wildcat	16.50	12/7/2012

Lot	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Township	Twnshp...	Range	Rng E/...	County	State	Well Configuration Type
	NW	NW			36	16	S	9	E	Emery	UT	Vertical

Wellbores

Wellbore Name	Profile Type	Kick Off Depth (ftKB)
Original Hole	Vertical	

Section Des	Size (in)	Act Top (ftKB)	Act Btm (ftKB)
Conductor	26	16.5	96.5
Surface	17 1/2	96.5	2,122.0
Intermediate	12 1/4	2,122.0	6,315.0
Production	8 1/2	6,315.0	7,480.0

Wellheads

Type	Install Date

Intermediate Casing Cement

Cementing Start Date	Cementing End Date	Wellbore
12/23/2012 03:30	12/23/2012 06:00	Original Hole

Evaluation Method	Cement Evaluation Results

Comment

Stage #1

Top Depth (ftKB)	Bottom Depth (ftKB)	Full Return?	Vol Cement Ret (bbl)	Top Plug?	Bottom Plug?
3,296.0	6,294.2	Yes	0.0	No	Yes

Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)	Final Pump Pressure (psi)	Plug Bump Pressure (psi)
6	3	6	500.0	

Pipe Reciprocated?	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)	Pipe Rotated?	Pipe RPM (rpm)
No			No	

Tagged Depth (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)	Drill Out Diameter (in)	Drill Out Date

Preflush

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Preflush	Water		Water	10.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	8.30			

Lead Cement

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Lead Cement	Lead cement slurry	200	EconoCem	75.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)
3,296.0	4,874.0	0.0	2.15	11.96

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	12.20			

Tail Cement

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Tail Cement	Tail slurry	350	ExtendaCem	80.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)
4,874.0	6,294.2	0.0	1.32	5.79

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	14.20			

Displacement

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Displacement			9.2 Waterbase mud	457.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	9.20			

Stage #2

Top Depth (ftKB)	Bottom Depth (ftKB)	Full Return?	Vol Cement Ret (bbl)	Top Plug?	Bottom Plug?
16.5	3,296.0	No	45.0	No	Yes

Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)	Final Pump Pressure (psi)	Plug Bump Pressure (psi)
6	1	6	650.0	2,000.0

Pipe Reciprocated?	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)	Pipe Rotated?	Pipe RPM (rpm)
No			No	

Tagged Depth (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)	Drill Out Diameter (in)	Drill Out Date

Cement Summary

Well Name: TULLY 16-9-36D

Well Information

API Number	WPC ID	Field Name	KB-Grd (ft)	Original Spud Date
43015500030000	1UT029802	Wildcat	16.50	12/7/2012

Lot	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Township	Twnshp...	Range	Rng E/...	County	State	Well Configuration Type
	NW	NW			36	16	S	9	E	Emery	UT	Vertical

Preflush

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Preflush		0	Water	10.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	8.30			

Lead Cement

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Lead Cement		820	EconoCem	315.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)
16.5	2,852.0	0.0	2.15	11.92

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	12.20			

Tail Cement

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Tail Cement		100		25.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)
2,852.0	3,296.0		1.32	5.79

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	14.20			

Displacement

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Displacement		0		241.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	9.20			

Cement Summary

Well Name: TULLY 16-9-36D

Well Information

API Number	WPC ID	Field Name	KB-Grd (ft)	Original Spud Date
43015500030000	1UT029802	Wildcat	16.50	12/7/2012

Lot	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Township	Twnshp...	Range	Rng E/...	County	State	Well Configuration Type
	NW	NW			36	16	S	9	E	Emery	UT	Vertical

Wellbores

Wellbore Name	Profile Type	Kick Off Depth (ftKB)
Original Hole	Vertical	

Section Des	Size (in)	Act Top (ftKB)	Act Btm (ftKB)
Conductor	26	16.5	96.5
Surface	17 1/2	96.5	2,122.0
Intermediate	12 1/4	2,122.0	6,315.0
Production	8 1/2	6,315.0	7,480.0

Wellheads

Type	Install Date

Production Casing Cement

Cementing Start Date	Cementing End Date	Wellbore
1/2/2013 15:30	1/2/2013 18:30	Original Hole

Evaluation Method	Cement Evaluation Results
Volume Calculations	Cement ot surface

Comment

Stage #1

Top Depth (ftKB)	Bottom Depth (ftKB)	Full Return?	Vol Cement Ret (bbl)	Top Plug?	Bottom Plug?
16.5	6,194.0	No	35.0	No	No

Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)	Final Pump Pressure (psi)	Plug Bump Pressure (psi)
5	5	5	430.0	

Pipe Reciprocated?	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)	Pipe Rotated?	Pipe RPM (rpm)
No			No	

Tagged Depth (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)	Drill Out Diameter (in)	Drill Out Date

Lead Cement

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Lead Cement		435	Econocem	158.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)
0.0	6,194.0	0.0	2.05	11.08

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	12.50			

Stage #2

Top Depth (ftKB)	Bottom Depth (ftKB)	Full Return?	Vol Cement Ret (bbl)	Top Plug?	Bottom Plug?
6,194.0	7,460.0	No		No	No

Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)	Final Pump Pressure (psi)	Plug Bump Pressure (psi)
5	5	5	1,600.0	2,150.0

Pipe Reciprocated?	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)	Pipe Rotated?	Pipe RPM (rpm)
No			No	

Tagged Depth (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)	Drill Out Diameter (in)	Drill Out Date

Tail Cement

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Tail Cement		230	Extenda-Cem	51.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)
4,375.0	6,404.0	35.0	1.25	5.46

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	14.20			

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-52222

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER: Tully 16-9-36D

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER: 43015500030000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER: 303 390-4095 Ext

9. FIELD and POOL or WILDCAT: WILDCAT

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0860 FNL 0856 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NWNW Section: 36 Township: 16.0S Range: 09.0E Meridian: S

COUNTY: EMERY

STATE: UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☑ SUBSEQUENT REPORT Date of Work Completion: 2/28/2013	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☑ OTHER	OTHER: Status update 022013

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Tag fluid @ 750'. Pump 2000 gals HCl (47.6 bbls) into perfs @ 6772-84'. Pressure @ 4028#. Displace w/45 bbls 7% KCl, ISIP 3726#, 5 mins 4379#, 10 mins 3414#, 15 mins 3375#. FL @ 6300', swab 44.5 bbls in 11 runs. Well on vac. Swab back 11 bbls in 4 runs, all water. Con't swabbing. On 6th run lost swab tools in hole. 2 mandrels 2', jars 40.5", sinker bar 9'10.5 ", Fish stuck in XN nipple. Will leave tool in XN until pkr/tbg pulled fr/hole. Con't swabbing started seeing small oil shows. WP=0. No FL, no fluid recovery. Prep to perf Torrey, Release pkr, caught fish, POOH. RIH, set CIBP @ 6765#, press test to 2000#. RIH w/ 3 1/8" guns, 6 spf, perf Torrey B @ 6714-29'. POOH, RIH with BHA, set pkr to 2000#. Pump DFIT@ 3.5 bpm, Avg press 3658#. ISIP 3605#, 5 mins 3266#, 10 mins 3189#, 15 mins 3135#. Swab 47 bbls in 8 runs, runs 10 & 11 no fluid. Con't swabbing, got trace of oil.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
June 18, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Pauleen Tobin	303 390-4267	Engineer Tech
SIGNATURE		**DATE**
N/A		6/18/2013

RECEIVED: Jun. 18, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-52222

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER: Tully 16-9-36D

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER: 43015500030000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER: 303 390-4095 Ext

9. FIELD and POOL or WILDCAT: WILDCAT

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0860 FNL 0856 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NWNW Section: 36 Township: 16.0S Range: 09.0E Meridian: S

COUNTY: EMERY

STATE: UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
✓ SUBSEQUENT REPORT Date of Work Completion: 3/5/2013	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: Status Update Mar 2013

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Con't swabbing. WP=0. FL @ 6500'. RD, release pkr, POOH. Well SI pending further economic evaluation.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
July 11, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Pauleen Tobin	303 390-4267	Engineer Tech
SIGNATURE		**DATE**
N/A		6/18/2013

RECEIVED: Jun. 18, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-52222

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER: Tully 16-9-36D

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER: 43015500030000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER: 303 390-4095 Ext

9. FIELD and POOL or WILDCAT: WILDCAT

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0860 FNL 0856 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NWNW Section: 36 Township: 16.0S Range: 09.0E Meridian: S

COUNTY: EMERY

STATE: UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
✓ SUBSEQUENT REPORT Date of Work Completion: 1/31/2013	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER: Status Update 01/2013

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU Svc Unit, BOPE. Roll hole, fluid clean. Run CBL. Perf 7180-7194, 6spf. Press csg to 2000#, held. Pump 500 gals 15% HCl, Over flush w/5bbls , press 4690#, ISIP 3547#, 5 mins 3122#, SI 1 hr. Max press 5060#, Avg press 4792#, Max rate 4.5bpm, Avg rate 2.5 bpm. Open to flow back. Swab back 40 bbls in 8 runs. Con't swabbing 100% wtr. well press @ 400#, SI 24 hrs, PBU. After 36 hrs WP 725#, FL @ 6000'. Caught fluid sample. POOH w/ kill string. RIH, set CIBP @ 7150', dump 2sx cmt on top. POOH, RIH w/4" guns, perf Sinbad @ 6772-84'. POOH. RU BHA latch into sx nipple, EOT 6760'. Press test csg to 200#. Pump DFIT. ISIP 3846#, 5 mins 3370#, 10 mins 3160#, 15 mins 2993#.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
July 11, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Pauleen Tobin	303 390-4267	Engineer Tech
SIGNATURE		**DATE**
N/A		6/18/2013

RECEIVED: Jun. 18, 2013

API Well Number: 43015500030000 Well Name TULLY 16-9-36D

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☐ (highlight changes) FORM 8

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER: ML-52222
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT or CA AGREEMENT NAME:
8. WELL NAME and NUMBER: Tully
9. API NUMBER: 4301550003
10. FIELD AND POOL, OR WILDCAT: Wildcat

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ DRY ☐ OTHER
b. TYPE OF WORK: NEW WELL ☑ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF RESVR. ☐ OTHER
2. NAME OF OPERATOR: Whiting Oil and Gas Corporation
3. ADDRESS OF OPERATOR: 1700 Broadway Ste 2300 CITY Denver STATE CO ZIP 80290
PHONE NUMBER: (303) 837-1661
4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: 860 FNL, 856 FWL
AT TOP PRODUCING INTERVAL REPORTED BELOW:
AT TOTAL DEPTH: 860 FNL, 856 FWL
11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNW 36 16S 9E S
12. COUNTY: Emery
13. STATE: UTAH

14. DATE SPUDDED:	15. DATE T.D. REACHED:	16. DATE COMPLETED:	ABANDONED	READY TO PRODUCE	17. ELEVATIONS (DF, RKB, RT, GL):
12/7/2012	12/30/2012	3/5/2013	☐	☑	5871'GR, 5887'KB

18. TOTAL DEPTH:	19. PLUG BACK T.D.:	20. IF MULTIPLE COMPLETIONS, HOW MANY? *	21. DEPTH BRIDGE PLUG SET:
MD 7,480 TVD 7,480	MD 6,765 TVD 6,765	No	MD 6,765 TVD 6,765

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)
MICRO,BH COMP/SONIC, CALIPER, TRIPLE COMBO, COMB MAG RES, ISOLATION SCANNER, AI/GR, PTFRM EX

23.
WAS WELL CORED? NO ☐ YES ☑ (Submit analysis)
WAS DST RUN? NO ☑ YES ☐ (Submit report)
DIRECTIONAL SURVEY? NO ☑ YES ☐ (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
26	20 H40	94	0	97				0	
17 1/2	13 3/8 J55	54.5	0	2,081		P/PL 1,510	654	0	
12 1/4	9 5/8 L80	47	0	6,297	3,296	Econo 1,470	495	0	
8 1/2	7 HCL80	29	0	7,460		Econo 665	209	0	

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

26. PRODUCING INTERVALS / 27. PERFORATION RECORD

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A) Moenkopi	6,156	6,769	6,156	6,769	6,714 6,729		62	Open ☑ Squeezed ☐
(B) Sinbad	6,770	7,176	6,770	7,176	6,772 6,784		73	Open ☑ Squeezed ☐
(C) Kaibab	7,176	7,326	7,176	7,326	7,180 7,194		50	Open ☑ Squeezed ☐
(D)								Open ☐ Squeezed ☐

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
7180-7194	500gals 15% acid
6772-6784	2000gals 15% HCl acid

29. ENCLOSED ATTACHMENTS:
☑ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☐ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☑ CORE ANALYSIS ☑ OTHER: Cement Rpts

30. WELL STATUS: SI

(5/2000) (CONTINUED ON BACK)

RECEIVED: Aug. 21, 2013

API Well Number: 43015500030000

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
2/26/2013	3/3/2013	24		0	0	3	swab

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:
							0	0	3	SI

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
2/4/2013	2/11/2013	24		0	0	3	swab

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:
							0	0	3	SI

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
1/18/2013	1/19/2013	24		0	0	14	swab

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:
							0	0	14	SI

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.

34. FORMATION (Log) MARKERS:

Name	Top (Measured Depth)
Dakota	1,891
Morrison	2,647
Summerville	3,270
Curtis	3,534
Entrada	3,714
Carmel	4,291
Navajo	4,925
Kayenta	5,350
Wingate	5,476
Chinle	5,841

35. ADDITIONAL REMARKS (Include plugging procedure)

Additional Log tops: Moenkopi 6156', Sinbad 6770', Kaibab 7176', White Rim SS 7326'. Well SI pending further evaluation.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) Pauleen Tobin TITLE Engineer Tech

SIGNATURE  DATE 8/21/13

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

(5/2000)

RECEIVED: Aug. 21, 2013

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 366960	**Ship To #:** 2968516	**Quote #:**	**Sales Order #:** 900070117
Customer: WHITING OIL & GAS CORP - EBUS		**Customer Rep:**	
Well Name: Tully	**Well #:** Tully 16-9-36D		**API/UWI #:**
Field:	**City (SAP):** EMERY	**County/Parish:** Emery	**State:** Utah
Contractor: FRONTIER	**Rig/Platform Name/Num:** 2		
Job Purpose: Cement Surface Casing			
Well Type: Development Well	**Job Type:** Cement Surface Casing		
Sales Person: FLING, MATTHEW	**Srvc Supervisor:** MCKEE, RALPH	**MBU ID Emp #:** 259268	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ARMENDARIZ, MIGUEL Angel	3.5	517738	GILES, JAMES W	3.5	522124	GOODRICH, BENJAMIN Franklin	3.5	481342
MCKEE, RALPH R	3.5	259268	SHIFLETT, JESSE Amos	3.5	469551			

Equipment

HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*
10261036	130 mile	10574660C	130 mile	10982756	130 mile	10994445	130 mile
11108220	130 mile	11127544	130 mile	11259879	130 mile	11287531	130 mile
11410666	130 mile						

Job Hours

Date	*On Location Hours*	Operating Hours	Date	*On Location Hours*	Operating Hours	Date	*On Location Hours*	Operating Hours
TOTAL			*Total is the sum of each column separately*					

Job

Formation Name			
Formation Depth (MD)	**Top**		**Bottom**
Form Type		**BHST**	
Job depth MD	2750. ft	**Job Depth TVD**	
Water Depth		**Wk Ht Above Floor**	
Perforation Depth (MD)	*From*		**To**

Job Times

	Date	Time	Time Zone
Called Out	11 - Dec - 2012	16:00	MST
On Location	11 - Dec - 2012	20:30	MST
Job Started	12 - Dec - 2012	11:19	MST
Job Completed	12 - Dec - 2012	15:50	MST
Departed Loc	12 - Dec - 2012	18:00	MST

Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
17 1/2" Open Hole				17.5				.	2750.		
13 3/8" Surface Casing	Unknown		13.375	12.615	61.	8 RD	J-55	.	2750.		

Sales/Rental/3rd Party (HES)

Description	Qty	Qty uom	Depth	Supplier
CENTRALIZER-13 3/8"-CSG-17 1/2"-HINGED	5	EA		
SHOE,FLOAT,13-3/8 8RD,2-3/4 SUPER SEAL	1	EA		
CLR,FLT,13-3/8 8RD 48-72PPF,2-3/4	1	EA		

HALLIBURTON

Cementing Job Summary

Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

Miscellaneous Materials

Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty		Conc	%
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size		Qty	

Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Fresh Water		3.00	bbl	8.34	.0	.0	.0	
2	SUPER FLUSH		30.00	bbl	9.2	.0	.0	.0	
	68 lbm/bbl	HALLIBURTON SUPER FLUSH (100003639)							
3	Fresh Water		15.00	bbl	8.33	.0	.0	.0	
4	Rockies LT	ROCKIES LT - SBM (430481)	1070.0	sacks	11.49	2.94	17.83		17.83
	0.125 lbm	POLY-E-FLAKE (101216940)							
	0.25 lbm	KWIK SEAL, SK (100064010)							
	17.83 Gal	FRESH WATER							
5	PREMIUM CEMENT	CMT - PREMIUM - CLASS G, 94 LB SK (100003685)	440.0	sacks	15.6	1.2	5.24		5.24
	94 lbm	CMT - PREMIUM - CLASS G REG OR TYPE V, BULK (100003685)							
	2 %	CALCIUM CHLORIDE - HI TEST PELLET (100005053)							
	0.125 lbm	POLY-E-FLAKE (101216940)							
	5.238 Gal	FRESH WATER							
6	Displacement Fluid		310.00	bbl	8.34	.0	.0	.0	
7	PREMIUM CEMENT	CMT - PREMIUM - CLASS G, 94 LB SK (100003685)		sacks	15.8	1.17	5.02		5.02
	94 lbm	CMT - PREMIUM - CLASS G REG OR TYPE V, BULK (100003685)							
	2 %	CALCIUM CHLORIDE - HI TEST PELLET (100005053)							
	5.019 Gal	FRESH WATER							

Calculated Values		Pressures		Volumes					
Displacement		Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns		Actual Displacement		Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	

Rates									
Circulating		Mixing		Displacement		Avg. Job			
Cement Left In Pipe	Amount	40 ft	Reason	Shoe Joint					
Frac Ring # 1 @	ID		Frac ring # 2 @	ID		Frac Ring # 3 @	ID		Frac Ring # 4 @ ID

The Information Stated Herein Is Correct

Customer Representative Signature

RECEIVED: Aug. 21, 2013

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 366960	**Ship To #:** 2968516	**Quote #:**	**Sales Order #:** 900081431
Customer: WHITING OIL & GAS CORP - EBUS		**Customer Rep:** Betts, Benjamin	
Well Name: Tully	**Well #:** 16-9-36D		**API/UWI #:**
Field: HOOK	**City (SAP):** EMERY	**County/Parish:** Carbon	**State:** Utah
Contractor: FRONTIER	**Rig/Platform Name/Num:** 2		
Job Purpose: Cement Multiple Stages			
Well Type: Development Well	**Job Type:** Cement Multiple Stages		
Sales Person: FLING, MATTHEW	**Srvc Supervisor:** CARPENTER, LANCE	**MBU ID Emp #:** 461737	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ARCHULETA, ZACK	0.0	529108	CARPENTER, LANCE S	0.0	461737	CLARK, SHAUN Cameron	0.0	527195
GAMBLES, BRAYDEN Kade	0.0	469413	SLAUGH, CODY B	0.0	104465	SMITH, BRET George	0.0	529662

Equipment

HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*

Job Hours

Date	*On Location Hours*	Operating Hours	Date	*On Location Hours*	Operating Hours	Date	*On Location Hours*	Operating Hours
TOTAL			*Total is the sum of each column separately*					

Job

Formation Name					
Formation Depth (MD)	**Top**		**Bottom**		
Form Type		**BHST**			
Job depth MD	6299. ft	**Job Depth TVD**	6299. ft		
Water Depth		**Wk Ht Above Floor**	4. ft		
Perforation Depth (MD)	*From*		**To**		

Job Times

	Date	Time	Time Zone
Called Out	22 - Dec - 2012	16:00	MST
On Location	22 - Dec - 2012	23:45	MST
Job Started	23 - Dec - 2012	03:50	MST
Job Completed	23 - Dec - 2012	11:20	MST
Departed Loc	23 - Dec - 2012	13:00	MST

Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
12 1/4" Open Hole				12.25				2750.	7050.		
13 3/8" Surface Casing	Unknown		13.375	12.615	61.		J-55	.	2750.		
9 5/8" Intermediate Casing	Unknown		9.625	8.681	47.	LTC	L-80	.	7050.		
Multiple Stage Cementer	Used		9.625	8.681	47.	8 RD (LT&C)	K-55	.	3950.		

Sales/Rental/3rd Party (HES)

Description	Qty	Qty uom	Depth	Supplier
SHOE,FLT,9-5/8 8RD,2-3/4 SUPER SEAL	1	EA		
CLR,FLT,9-5/8 8RD 29.3-40PPF,2-3/4	1	EA		
CENTRALIZER-9-5/8"-CSG-12 1/4"-HINGED	52	EA		

HALLIBURTON

Cementing Job Summary

Description	Qty	Qty uom	Depth	Supplier
COLLAR-STOP-9 5/8"-FRICTION-HINGED	1	EA		
KIT,HALL WELD-A	3	EA		
PLUG SET,FREE FALL,9-5/8 8RD&BUTRS	1	EA		

Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

Miscellaneous Materials

Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty		Conc	%
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size		Qty	

Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Fresh Water		10.00	bbl	8.33	.0	.0	.0	
2	EconoCem	ECONOCEM (TM) SYSTEM (452992)	200.0	sacks	12.2	2.15	11.96		11.96
	0.125 lbm	POLY-E-FLAKE (101216940)							
	0.2 %	SUPER CBL, 50 LB PAIL (100003668)							
	11.96 Gal	FRESH WATER							
3	EXTENDACEM	EXTENDACEM (TM) SYSTEM (452981)	450.0	sacks	14.2	1.32	5.79		5.79
	0.2 %	SUPER CBL, 50 LB PAIL (100003668)							
	0.3 %	HALAD(R)-413, 50 LB (100003738)							
	5.79 Gal	FRESH WATER							
4	Displacement Fluid		457.00	bbl	9.4			.0	

Stage/Plug #: 2

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density uom	Yield uom	Mix Fluid uom	Rate uom	Total Mix Fluid uom
1	Fresh Water		10.00	bbl	8.33	.0	.0	.0	
2	EconoCem	ECONOCEM (TM) SYSTEM (452992)	820.0	sacks	12.2	2.15	11.96		11.96
	0.125 lbm	POLY-E-FLAKE (101216940)							
	0.2 %	SUPER CBL, 50 LB PAIL (100003668)							
	11.96 Gal	FRESH WATER							
3	Displacement Fluid		241.00	bbl	8.6	.0	.0	.0	

Calculated Values		Pressures		Volumes					
Displacement		Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns		Actual Displacement		Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	

Rates							
Circulating		Mixing		Displacement		Avg. Job	
Cement Left In Pipe	Amount 40 ft	Reason	Shoe Joint				
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID

The Information Stated Herein Is Correct	Customer Representative Signature

Summit Version:

Monday, July 22, 2013 14:37:00

RECEIVED: Aug. 21, 2013

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 366960	**Ship To #:** 2968516	**Quote #:**	**Sales Order #:** 900098975
Customer: WHITING OIL & GAS CORP - EBUS		**Customer Rep:** Betts, Benjamin	
Well Name: TULLY	**Well #:** 16-9-36D		**API/UWI #:**
Field: HOOK	**City (SAP):** EMERY	**County/Parish:** Carbon	**State:** Utah
Contractor: FRONTIER	**Rig/Platform Name/Num:** 2		
Job Purpose: Cement Production Casing			
Well Type: Development Well	**Job Type:** Cement Production Casing		
Sales Person: FLING, MATTHEW	**Srvc Supervisor:** DEAN, MARK	**MBU ID Emp #:** 454214	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
DEAN, MARK Christophe	0.0	454214	FUCHS, JUSTIN Mark	0.0	509124	GILES, JAMES W	0.0	522124
HUNTER, SAMUEL David	0.0	479669						

Equipment

HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*

Job Hours

Date	*On Location Hours*	Operating Hours	Date	*On Location Hours*	Operating Hours	Date	*On Location Hours*	Operating Hours
TOTAL			*Total is the sum of each column separately*					

Job

Formation Name					
Formation Depth (MD)	**Top**		**Bottom**		
Form Type		**BHST**			
Job depth MD	7702. ft	**Job Depth TVD**	7702. ft		
Water Depth		**Wk Ht Above Floor**			
Perforation Depth (MD)	*From*		**To**		

Job Times

	Date	Time	Time Zone
Called Out	01 - Jan - 2013	23:00	MST
On Location	02 - Jan - 2013	06:30	MST
Job Started	02 - Jan - 2013	15:20	MST
Job Completed	02 - Jan - 2013	17:39	MST
Departed Loc	02 - Jan - 2013	19:45	MST

Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
8 1/2" Open Hole				8.5				6294.	7702.		
7" Intermediate Casing	Unknown		7.	6.184	29.	LTC	HCP110	.	7702.		
9 5/8" Intermediate Casing	Unknown		9.625	8.681	47.	LTC	L-80	.	6294.		

Sales/Rental/3rd Party (HES)

Description	Qty	Qty uom	Depth	Supplier
PLUG,CMTG,TOP,7,HWE,5.66 MIN/6.54 MAX CS	1	EA		

Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

Summit Version: Sunday, January 13, 2013 16:35:00

RECEIVED: Aug. 21, 2013

HALLIBURTON

Cementing Job Summary

Miscellaneous Materials

Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty		Conc	%
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size		Qty	

Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Fresh Water			bbl	8.33	.0	.0	.0	
2	Super Flush			bbl	10.	2.55	15.84	.0	
110 lbm/bbl		HALLIBURTON SUPER FLUSH (100003639)							
15.84 gal/bbl		FRESH WATER							
3	Fresh Water			bbl	8.33	.0	.0	.0	
4	Econocem	ECONOCEM (TM) SYSTEM (452992)		sacks	12.5	2.05	11.08		11.08
0.4 %		HR-800, 50 LB SACK (101619742)							
0.125 lbm		POLY-E-FLAKE (101216940)							
11.08 Gal		FRESH WATER							
5	EXTENDACEM	EXTENDACEM (TM) SYSTEM (452981)		sacks	14.2	1.25	5.46		5.46
0.3 %		HR-5, 50 LB SK (100005050)							
0.125 lbm		POLY-E-FLAKE (101216940)							
5.46 Gal		FRESH WATER							
6	Displacement Fluid			bbl	10.5			.0	

Calculated Values		Pressures		Volumes					
Displacement		Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns		Actual Displacement		Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	

Rates							
Circulating		Mixing		Displacement		Avg. Job	
Cement Left In Pipe	Amount 40 ft	Reason	Shoe Joint				
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID

The Information Stated Herein Is Correct	Customer Representative Signature

Summit Version:

Sunday, January 13, 2013 16:35:00

RECEIVED: Aug. 21, 2013

RECEIVED
AUG 2 6 2013
DIV. OF OIL, GAS & MINING

Whiting Oil and Gas
Tully 16-9-36D
Emery County, Utah
4301550003
360 FNL 860 FWL
NWNW 36 16S 9E

CL File No.: DEN-120167
Date: 5/31/2013
Analyst(s): JC

Core Lab
RESERVOIR OPTIMIZATION

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
1w	6677.00	ambient	0.64	***	***	***	***	***	6.6	76.4	2.701	
1w	6677.00	2000	***	***	***	***	***	***				(2)
2w	6680.00	ambient	1.47	***	***	***	***	***	5.1	80.2	2.758	(5)
3	6684.20	ambient	2.83	***	***	***	***	***	4.7	61.7	2.735	(5)
4	6686.10	ambient	3.09	***	***	***	***	***	18.2	48.2	2.699	
4	6686.10	2000	2.65	.011	.030	48.56	3.53E+13	1.90E+03			2.699	(1)
5	6688.50	ambient	1.54	***	***	***	***	***	19.7	43.4	2.711	
5	6688.50	2000	0.65	.00001	.0001	376.36	1.83E+18	3.45E+05			2.711	
6	6689.50	ambient	1.03	***	***	***	***	***	10.3	83.1	2.703	
6	6689.50	2000	***	***	***	***	***	***				(2)
7	6698.30	ambient	1.29	***	***	***	***	***	3.7	73.5	2.716	
7	6698.30	2000	***	***	***	***	***	***				(2)
8w	6701.00	ambient	0.72	***	***	***	***	***	3.4	72.5	2.714	(5)
9w	6702.00	ambient	2.31	***	***	***	***	***	10.3	60.0	2.727	
9w	6702.00	2000	0.87	.015	.040	50.40	4.56E+13	2.25E+03			2.727	(1)
10	6704.40	ambient	0.62	***	***	***	***	***	11.9	77.0	2.702	
10	6704.40	2000	***	***	***	***	***	***				(2)
11w	6707.00	ambient	0.71	***	***	***	***	***	6.1	92.1	2.712	
11w	6707.00	2000	0.43	.0002	.001	251.34	2.27E+17	1.26E+05			2.712	(1)
12	6710.50	ambient	0.88	***	***	***	***	***	3.2	91.4	2.725	
12	6710.50	2000	***	***	***	***	***	***				(2)
13	6711.60	ambient	0.54	***	***	***	***	***	1.6	82.3	2.739	
13	6711.60	2000	***	***	***	***	***	***				(2)
14	6712.50	ambient	1.68	***	***	***	***	***	12.8	38.9	2.717	

Whiting Oil and Gas
Tully 16-9-36D
Emery County, Utah

CL File No.: DEN-120167
Date: 5/31/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
14	6712.50	2000	1.56	.001	.004	142.89	1.04E+16	2.93E+04			2.717	
15	6713.60	ambient	2.29	***	***	***	***	***	21.8	33.6	2.727	
15	6713.60	2000	1.77	.0004	.002	189.79	4.99E+16	6.16E+04			2.727	
16	6714.60	ambient	3.40	***	***	***	***	***	20.5	31.8	2.711	
16	6714.60	2000	2.64	.001	.005	126.17	5.21E+15	2.11E+04			2.711	
17	6715.50	ambient	3.44	***	***	***	***	***	26.4	24.5	2.721	
17	6715.50	2000	3.08	.009	.027	62.45	1.28E+14	3.67E+03			2.721	
18	6716.10	ambient	2.77	***	***	***	***	***	39.0	15.4	2.730	
18	6716.10	2000	2.53	.001	.004	143.07	1.05E+16	2.94E+04			2.730	
20	6716.50	ambient	3.28	***	***	***	***	***	40.4	13.0	2.714	
20	6716.50	2000	3.11	.002	.007	114.68	3.08E+15	1.65E+04			2.714	
21	6717.00	ambient	4.19	***	***	***	***	***	45.5	10.4	2.690	
21	6717.00	2000	3.64	.001	.007	117.26	3.48E+15	1.75E+04			2.690	
22	6717.70	ambient	3.50	***	***	***	***	***	48.0	12.0	2.718	
22	6717.70	2000	3.00	.001	.005	129.95	6.13E+15	2.28E+04			2.718	
23	6718.70	ambient	2.77	***	***	***	***	***	15.9	27.4	2.680	
23	6718.70	2000	2.60	.001	.004	141.26	9.75E+15	2.85E+04			2.680	
24	6719.60	ambient	1.43	***	***	***	***	***	28.6	45.2	2.735	
24	6719.60	2000	0.29	.0001	.001	336.99	1.03E+18	2.60E+05			2.735	
25	6720.50	ambient	1.65	***	***	***	***	***	17.5	33.1	2.746	
25	6720.50	2000	1.10	.0004	.002	184.47	4.28E+16	5.73E+04			2.746	(1)
26	6721.50	ambient	1.89	***	***	***	***	***	18.7	28.4	2.742	
26	6721.50	2000	1.14	.251	.284	3.10	8.94E+12	7.32E+03			2.742	(1)
27	6722.50	ambient	1.94	***	***	***	***	***	6.0	36.0	2.743	

Whiting Oil and Gas
Tully 16-9-36D
Emery County, Utah

CL File No.: DEN-120167
Date: 5/31/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability		b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation		Grain Density (g/cm3)	Footnote
				Klinkenberg (md)	Kair (md)				Oil % Pore Volume	Water % Pore Volume		
27	6722.50	2000	1.70	.002	.009	105.80	2.00E+15	1.34E+04			2.743	(1)
28	6723.50	ambient	2.50	***	***	***	***	***	29.9	25.1	2.716	
28	6723.50	2000	2.00	.001	.005	138.68	8.80E+15	2.71E+04			2.716	
29	6724.50	ambient	3.45	***	***	***	***	***	46.2	12.2	2.703	
29	6724.50	2000	3.35	.001	.005	135.79	7.81E+15	2.56E+04			2.703	
30	6725.40	ambient	3.05	***	***	***	***	***	40.1	16.5	2.728	
30	6725.40	2000	2.89	.001	.005	136.22	7.95E+15	2.58E+04			2.728	
31v	6725.70	ambient	3.02	***	***	***	***	***	39.0	19.7	2.711	
31v	6725.70	2000	2.37	.001	.004	150.3	1.4E+16	3.4E+04			2.711	
32v	6725.70	ambient	3.46	***	***	***	***	***	34.2	19.6	2.704	
32v	6725.70	2000	3.04	.001	.003	164.6	2.3E+16	4.3E+04			2.704	
34	6726.50	ambient	2.87	***	***	***	***	***	37.3	19.0	2.727	
34	6726.50	2000	2.61	.001	.003	161.96	2.08E+16	4.07E+04			2.727	
35	6726.90	ambient	3.27	***	***	***	***	***	42.4	12.6	2.729	
35	6726.90	2000	2.86	.001	.003	169.73	2.69E+16	4.59E+04			2.729	
36	6728.00	ambient	4.03	***	***	***	***	***	41.0	15.5	2.717	
36	6728.00	2000	3.70	.001	.006	120.35	4.00E+15	1.87E+04			2.717	
38	6728.60	ambient	4.03	***	***	***	***	***	46.0	10.4	2.697	
38	6728.60	2000	3.79	.001	.005	130.0	6.1E+15	2.3E+04			2.697	
39	6729.60	ambient	2.83	***	***	***	***	***	37.5	15.0	2.732	
39	6729.60	2000	2.45	.001	.004	152.32	1.48E+16	3.46E+04			2.732	
40	6730.40	ambient	2.88	***	***	***	***	***	41.4	15.0	2.699	
40	6730.40	2000	2.26	.001	.005	136.55	8.08E+15	2.60E+04			2.699	
41	6731.00	ambient	2.30	***	***	***	***	***	25.5	27.7	2.732	

Whiting Oil and Gas
Tully 16-9-36D
Emery County, Utah

CL File No.: DEN-120167
Date: 5/31/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
41	6731.00	2000	1.89	.006	.020	72.60	2.74E+14	5.25E+03			2.732	(1)
42	6732.00	ambient	1.77	***	***	***	***	***	28.9	29.9	2.742	
42	6732.00	2000	0.46	.0001	.001	341.12	1.09E+18	2.67E+05			2.742	
43	6733.40	ambient	2.60	***	***	***	***	***	31.2	28.2	2.683	
43	6733.40	2000	2.56	.0004	.002	184.65	4.34E+16	5.80E+04			2.683	
44	6734.20	ambient	3.32	***	***	***	***	***	46.0	12.7	2.673	
44	6734.20	2000	3.25	.001	.003	170.32	2.74E+16	4.63E+04			2.673	
45	6735.60	ambient	2.66	***	***	***	***	***	21.8	29.9	2.705	
45	6735.60	2000	2.17	.225	.338	12.08	2.61E+12	1.90E+03			2.705	(1)
46	6736.50	ambient	2.46	***	***	***	***	***	33.4	26.0	2.695	
46	6736.50	2000	2.18	.001	.005	106.22	2.02E+15	1.35E+04			2.695	
47	6737.85	ambient	2.22	***	***	***	***	***	6.4	52.3	2.731	
47	6737.85	2000	2.03	.094	.151	15.69	1.49E+13	5.52E+03			2.731	(1)
48	6738.50	ambient	1.60	***	***	***	***	***	8.8	46.5	2.731	
48	6738.50	2000	1.51	.00003	.0002	239.96	1.79E+17	1.13E+05			2.731	
49	6739.30	ambient	2.36	***	***	***	***	***	16.7	38.2	2.702	
49	6739.30	2000	1.92	.001	.005	108.12	2.22E+15	1.41E+04			2.702	
50	6741.75	ambient	1.52	***	***	***	***	***	6.7	58.7	2.739	
50	6741.75	2000	1.14	.006	.017	56.50	7.86E+13	2.91E+03			2.739	(1)
51	6743.60	ambient	0.82	***	***	***	***	***	3.2	59.4	2.747	
51	6743.60	2000	0.75	.0001	.0003	207.51	8.14E+16	7.77E+04			2.747	
52	6744.60	ambient	1.27	***	***	***	***	***	4.0	67.6	2.757	
52	6744.60	2000	0.85	.010	.017	20.81	3.13E+14	1.11E+04			2.757	(1)
53	6745.65	ambient	1.11	***	***	***	***	***	0.0	84.5	2.741	

Whiting Oil and Gas
Tully 16-9-36D
Emery County, Utah

CL File No.: DEN-120167
Date: 5/31/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability		b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation		Grain Density (g/cm3)	Footnote
				Klinkenberg (md)	Kair (md)				Oil % Pore Volume	Water % Pore Volume		
53	6745.65	2000	***	***	***	***	***	***				(2)
54	6746.50	ambient	1.06	***	***	***	***	***	0.0	87.3	2.727	(5)
56	6748.50	ambient	2.28	***	***	***	***	***	5.9	72.7	2.737	(5)
60	6755.70	ambient	2.14	***	***	***	***	***	3.1	55.9	2.735	(5)
61	6759.00	ambient	2.35	***	***	***	***	***	15.6	78.6	2.745	(5)
62	6761.00	ambient	1.08	***	***	***	***	***	13.6	41.1	2.717	
62	6761.00	2000	***	***	***	***	***	***				(2)
63	6761.80	ambient	2.29	***	***	***	***	***	35.1	15.1	2.709	
63	6761.80	2000	1.76	.0002	.001	168.73	2.61E+16	4.54E+04			2.709	
64	6762.70	ambient	4.44	***	***	***	***	***	44.8	10.4	2.753	
64	6762.70	2000	4.30	.0003	.001	145.29	1.15E+16	3.07E+04			2.753	
65	6763.50	ambient	3.39	***	***	***	***	***	26.2	27.5	3.033	
65	6763.50	2000	3.01	.053	.067	6.77	2.69E+12	4.72E+02			3.033	(1)
66	6763.85	ambient	2.46	***	***	***	***	***	32.8	18.5	2.725	
66	6763.85	2000	2.16	.0002	.001	154.70	1.61E+16	3.61E+04			2.725	
67	6765.40	ambient	2.80	***	***	***	***	***	40.3	18.5	2.708	
67	6765.40	2000	2.73	.0004	.002	138.93	8.87E+15	2.72E+04			2.708	
68	6766.90	ambient	2.26	***	***	***	***	***	37.1	20.9	2.753	
68	6766.90	2000	2.01	.0002	.001	154.41	1.60E+16	3.60E+04			2.753	
69	6767.50	ambient	1.98	***	***	***	***	***	38.8	38.5	2.762	
69	6767.50	2000	1.76	1.31	1.35	0.65	2.43E+11	1.05E+03			2.762	(1)
70	6768.00	ambient	2.24	***	***	***	***	***	28.8	18.8	2.700	
70	6768.00	2000	2.07	.0001	.0003	210.98	8.98E+16	8.14E+04			2.700	
71	6768.50	ambient	3.03	***	***	***	***	***	27.2	27.6	2.751	

Whiting Oil and Gas
Tully 16-9-36D
Emery County, Utah

CL File No.: DEN-120167
Date: 5/31/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
71	6768.50	2000	2.95	.001	.003	117.20	3.46E+15	1.74E+04			2.751	
73	6769.40	ambient	3.69	***	***	***	***	***	36.0	17.9	2.741	
73	6769.40	2000	3.56	.0002	.001	166.91	2.48E+16	4.45E+04			2.741	
74	6769.90	ambient	3.72	***	***	***	***	***	30.7	22.3	2.731	
74	6769.90	2000	3.38	.001	.003	117.98	3.57E+15	1.77E+04			2.731	
76	6770.90	ambient	3.26	***	***	***	***	***	22.6	25.4	2.753	
76	6770.90	2000	2.33	1.21	1.28	1.10	1.15E+10	4.54E+01			2.753	(1)
77	6771.60	ambient	3.38	***	***	***	***	***	29.7	21.8	2.734	
77	6771.60	2000	3.10	.006	.018	70.45	2.37E+14	4.90E+03			2.734	(1)
78	6773.00	ambient	5.70	***	***	***	***	***	45.8	8.5	2.778	
78	6773.00	2000	5.35	.0003	.001	142.90	1.04E+16	2.94E+04			2.778	
79	6773.25	ambient	6.41	***	***	***	***	***	48.2	6.6	2.761	
79	6773.25	2000	5.81	.001	.004	150.1	1.4E+16	3.3E+04			2.761	
80	6773.25	ambient	7.03	***	***	***	***	***	48.6	7.5	2.767	
80	6773.25	2000	6.97	.001	.005	132.1	6.8E+15	2.4E+04			2.767	
81	6773.50	ambient	9.21	***	***	***	***	***	49.4	4.6	2.832	
81	6773.50	2000	8.67	.001	.005	101.90	1.63E+15	1.22E+04			2.832	
83	6774.50	ambient	7.70	***	***	***	***	***	47.2	5.4	2.767	
83	6774.50	2000	7.49	.003	.010	97.14	1.26E+15	1.08E+04			2.767	
84	6775.00	ambient	7.79	***	***	***	***	***	44.6	5.3	2.763	
84	6775.00	2000	7.71	.005	.017	76.88	3.70E+14	6.05E+03			2.763	
85	6775.50	ambient	4.37	***	***	***	***	***	42.1	9.6	2.735	
85	6775.50	2000	4.26	.0004	.002	184.45	4.30E+16	5.74E+04			2.735	
86	6776.00	ambient	4.02	***	***	***	***	***	26.8	20.4	2.715	

Whiting Oil and Gas
Tully 16-9-36D
Emery County, Utah

CL File No.: DEN-120167
Date: 5/31/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
86	6776.00	2000	3.97	.002	.009	102.03	1.63E+15	1.22E+04			2.715	
87	6776.50	ambient	3.75	***	***	***	***	***	37.2	11.0	2.706	
87	6776.50	2000	3.50	.001	.003	166.18	2.39E+16	4.34E+04			2.706	
88	6777.50	ambient	1.70	***	***	***	***	***	38.1	18.5	2.697	
88	6777.50	2000	1.21	.0001	.001	285.30	4.38E+17	1.73E+05			2.697	
89	6779.00	ambient	1.53	***	***	***	***	***	39.2	6.8	2.709	
89	6779.00	2000	1.10	.00005	.0003	220.80	1.14E+17	9.10E+04			2.709	
90	6779.50	ambient	2.09	***	***	***	***	***	38.4	5.1	2.692	
90	6779.50	2000	1.68	.0002	.001	165.14	2.32E+16	4.29E+04			2.692	
91	6780.10	ambient	1.96	***	***	***	***	***	41.9	4.2	2.697	
91	6780.10	2000	1.09	.0002	.001	242.31	1.86E+17	1.15E+05			2.697	
92	6780.50	ambient	2.16	***	***	***	***	***	38.3	5.7	2.693	
92	6780.50	2000	1.38	.0002	.002	221.11	1.15E+17	9.19E+04			2.693	
93	6781.10	ambient	2.03	***	***	***	***	***	50.4	5.2	2.689	
93	6781.10	2000	1.30	.0002	.001	239.64	1.76E+17	1.12E+05			2.689	
94	6781.50	ambient	1.98	***	***	***	***	***	46.9	5.3	2.681	
94	6781.50	2000	1.61	.0002	.001	232.18	1.48E+17	1.03E+05			2.681	
95	6781.95	ambient	2.11	***	***	***	***	***	44.2	5.0	2.679	
95	6781.95	2000	1.38	.0002	.001	236.62	1.64E+17	1.08E+05			2.679	
96	6782.60	ambient	2.39	***	***	***	***	***	45.7	4.3	2.680	
96	6782.60	2000	1.69	.0002	.002	227.41	1.33E+17	9.79E+04			2.680	
97	6782.90	ambient	2.42	***	***	***	***	***	37.6	4.7	2.684	
97	6782.90	2000	2.17	.003	.012	88.72	7.74E+14	8.58E+03			2.684	(1)
98	6784.20	ambient	2.84	***	***	***	***	***	48.2	5.1	2.694	

Whiting Oil and Gas
Tully 16-9-36D
Emery County, Utah

CL File No.: DEN-120167
Date: 5/31/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
98	6784.20	2000	2.12	.0001	.001	256.29	2.54E+17	1.35E+05			2.694	
99	6785.50	ambient	2.19	***	***	***	***	***	46.0	5.2	2.692	
99	6785.50	2000	1.11	.0001	.001	299.80	5.68E+17	1.96E+05			2.692	
100	6786.50	ambient	2.47	***	***	***	***	***	46.0	4.9	2.692	
100	6786.50	2000	1.62	.0001	.001	293.41	5.17E+17	1.88E+05			2.692	
101	6787.80	ambient	2.39	***	***	***	***	***	42.4	8.6	2.700	
101	6787.80	2000	1.29	.0001	.001	320.92	8.10E+17	2.32E+05			2.700	
102	6788.30	ambient	1.79	***	***	***	***	***	26.7	25.2	2.704	
102	6788.30	2000	0.56	.0001	.001	346.25	1.18E+18	2.78E+05			2.704	
103	6789.00	ambient	1.68	***	***	***	***	***	8.1	35.1	2.712	
103	6789.00	2000	1.16	.0001	.001	366.50	1.58E+18	3.20E+05			2.712	
104	6790.00	ambient	1.63	***	***	***	***	***	5.1	39.6	2.708	
104	6790.00	2000	***	***	***	***	***	***				(2)
105	6791.60	ambient	2.89	***	***	***	***	***	40.6	42.5	2.721	(5)
106	6792.10	ambient	1.23	***	***	***	***	***	2.7	45.5	2.716	
106	6792.10	2000	***	***	***	***	***	***				(2)
107w	6792.60	ambient	1.20	***	***	***	***	***	13.9	36.1	2.716	
107w	6792.60	2000	***	***	***	***	***	***				(2)
108	6793.60	ambient	1.48	***	***	***	***	***	8.1	44.1	2.720	
108	6793.60	2000	***	***	***	***	***	***				(2)
109	6794.50	ambient	1.40	***	***	***	***	***	2.1	47.8	2.725	
109	6794.50	2000	***	***	***	***	***	***				(2)
110	6795.00	ambient	1.74	***	***	***	***	***	0.0	46.3	2.726	
110	6795.00	2000	0.21	.00004	.0004	423.16	3.16E+18	4.46E+05			2.726	

Whiting Oil and Gas
Tully 16-9-36D
Emery County, Utah

CL File No.: DEN-120167
Date: 5/31/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability		b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation		Grain Density (g/cm3)	Footnote
				Klinkenberg (md)	Kair (md)				Oil % Pore Volume	Water % Pore Volume		
111	6796.10	ambient	2.42	***	***	***	***	***	11.0	32.4	2.739	
111	6796.10	2000	2.31	.0001	.0004	232.37	1.52E+17	1.05E+05			2.739	
112	6797.00	ambient	2.69	***	***	***	***	***	11.0	32.8	2.734	
112	6797.00	2000	1.65	.0001	.001	284.02	4.34E+17	1.72E+05			2.734	
113	6797.45	ambient	2.39	***	***	***	***	***	7.7	32.0	2.762	
113	6797.45	2000	1.27	.0001	.001	295.47	5.33E+17	1.90E+05			2.762	
114w	6798.35	ambient	1.62	***	***	***	***	***	1.4	41.9	2.732	
114w	6798.35	2000	***	***	***	***	***	***				(2)
115w	6798.90	ambient	1.59	***	***	***	***	***	1.9	38.1	2.729	
115w	6798.90	2000	***	***	***	***	***	***				(2)
116w	6799.70	ambient	1.15	***	***	***	***	***	2.1	32.2	2.717	
116w	6799.70	2000	***	***	***	***	***	***				(2)
117w	6801.30	ambient	1.01	***	***	***	***	***	4.8	69.3	2.714	
117w	6801.30	2000	***	***	***	***	***	***				(2)
118w	6803.70	ambient	1.09	***	***	***	***	***	4.2	39.7	2.710	
118w	6803.70	2000	***	***	***	***	***	***				(2)
119w	6805.50	ambient	2.23	***	***	***	***	***	17.8	29.6	2.706	
119w	6805.50	2000	1.51	.001	.005	109.21	2.36E+15	1.45E+04			2.706	(1)
120w	6808.65	ambient	1.20	***	***	***	***	***	2.1	42.8	2.724	(5)
121w	6810.55	ambient	1.19	***	***	***	***	***	4.3	36.5	2.723	
121w	6810.55	2000	1.08	.0001	.0004	224.36	1.35E+17	1.03E+05			2.723	
122w	6812.60	ambient	1.88	***	***	***	***	***	21.0	6.5	2.719	
122w	6812.60	2000	1.80	.002	.007	96.25	1.82E+15	1.60E+04			2.719	
123w	6813.55	ambient	1.74	***	***	***	***	***	27.9	6.2	2.721	

Whiting Oil and Gas
Tully 16-9-36D
Emery County, Utah

CL File No.: DEN-120167
Date: 5/31/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
123w	6813.55	2000	1.69	.005	.015	73.36	2.88E+14	5.37E+03			2.721	(1)
124w	6814.35	ambient	1.28	***	***	***	***	***	39.5	17.6	2.704	
124w	6814.35	2000	1.18	.0005	.002	135.66	7.80E+15	2.56E+04			2.704	(1)
125	6815.60	ambient	1.61	***	***	***	***	***	33.1	6.7	2.708	
125	6815.60	2000	1.56	.0004	.002	132.63	6.86E+15	2.41E+04			2.708	
126	6816.80	ambient	1.54	***	***	***	***	***	1.7	28.2	2.725	
126	6816.80	2000	0.87	.973	1.09	2.26	8.05E+11	2.60E+03			2.725	(1)
127	6819.50	ambient	2.90	***	***	***	***	***	5.4	28.1	2.704	
127	6819.50	2000	1.90	.080	.157	24.60	2.95E+12	7.86E+02			2.704	(1)
128w	6821.45	ambient	2.45	***	***	***	***	***	5.5	37.4	2.700	
128w	6821.45	2000	2.36	.0003	.002	144.22	1.09E+16	3.00E+04			2.700	(1)
129	6815.60	ambient	2.39	***	***	***	***	***	6.8	39.9	2.706	
129	6822.45	2000	2.26	.001	.002	131.72	6.58E+15	2.36E+04			2.706	
130	6823.55	ambient	1.52	***	***	***	***	***	3.5	35.6	2.703	
130	6823.55	2000	1.05	.00002	.0002	254.20	2.40E+17	1.30E+05			2.703	
131	6824.65	ambient	1.26	***	***	***	***	***	0.0	34.9	2.723	(5)
132w	6825.50	ambient	0.74	***	***	***	***	***	0.0	44.1	2.798	
132w	6825.50	2000	***	***	***	***	***	***				(2)
133	6827.00	ambient	1.10	***	***	***	***	***	0.0	71.8	2.721	
133	6827.00	2000	0.76	.706	.750	1.39	1.56E+12	4.01E+03			2.721	(1)
134	6828.10	ambient	1.26	***	***	***	***	***	0.0	69.2	2.722	
134	6828.10	2000	0.96	.001	.004	111.05	2.59E+15	1.52E+04			2.722	
135w	6829.70	ambient	1.11	***	***	***	***	***	4.5	71.7	2.750	
135w	6829.70	2000	0.23	.00001	.0001	349.79	1.24E+18	2.85E+05			2.750	

Whiting Oil and Gas
Tully 16-9-36D
Emery County, Utah

CL File No.: DEN-120167
Date: 5/31/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability		b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation		Grain Density (g/cm3)	Footnote
				Klinkenberg (md)	Kair (md)				Oil % Pore Volume	Water % Pore Volume		
136	6830.70	ambient	1.13	***	***	***	***	***	0.4	84.3	2.716	
136	6830.70	2000	***	***	***	***	***	***			2.716	(2)
137	6831.00	ambient	1.06	***	***	***	***	***	0.0	73.1	2.730	
137	6831.00	2000	0.45	.00002	.0001	273.83	3.57E+17	1.57E+05			2.730	
139w	6833.00	ambient	0.80	***	***	***	***	***	2.1	29.8	2.732	
139w	6833.00	2000	***	***	***	***	***	***				(2)
140w	6834.50	ambient	1.50	***	***	***	***	***	3.0	30.8	2.751	
140w	6834.50	2000	0.97	.0005	.002	131.54	6.57E+15	2.36E+04			2.751	
141w	6835.80	ambient	1.08	***	***	***	***	***	1.0	40.5	2.740	
141w	6835.80	2000	***	***	***	***	***	***				(2)
142w	6837.50	ambient	1.03	***	***	***	***	***	0.0	38.0	2.749	
142w	6837.50	2000	***	***	***	***	***	***				(2)
143w	6838.50	ambient	0.95	***	***	***	***	***	0.0	69.0	2.750	
143w	6838.50	2000	***	***	***	***	***	***				(2)
144w	6840.50	ambient	1.23	***	***	***	***	***	3.1	43.7	2.757	
144w	6840.50	2000	***	***	***	***	***	***				(2)
146w	6841.50	ambient	3.59	***	***	***	***	***	22.0	3.9	2.730	
146w	6841.50	2000	3.38	.001	.003	131.03	6.42E+15	2.34E+04			2.730	
147w	6842.65	ambient	5.19	***	***	***	***	***	25.7	2.1	2.709	
147w	6842.65	2000	4.92	.004	.008	36.89	3.37E+15	6.15E+04			2.709	
148w	6843.00	ambient	4.15	***	***	***	***	***	15.5	3.7	2.706	
148w	6843.00	2000	3.79	.005	.015	74.63	3.13E+14	5.59E+03			2.706	
149w	6843.50	ambient	4.36	***	***	***	***	***	11.7	5.0	2.704	
149w	6843.50	2000	3.90	.002	.008	101.27	1.57E+15	1.20E+04			2.704	

Whiting Oil and Gas
Tully 16-9-36D
Emery County, Utah

CL File No.: DEN-120167
Date: 5/31/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
150w	6844.50	ambient	1.22	***	***	***	***	***	0.0	42.7	2.714	
150w	6844.50	2000	0.93	.0001	.001	207.19	9.00E+15	8.59E+03			2.714	
151w	6845.55	ambient	1.38	***	***	***	***	***	0.0	47.3	2.738	(5)
152w	6846.90	ambient	1.35	***	***	***	***	***	0.0	38.1	2.747	
152w	6846.90	2000	***	***	***	***	***	***				(2)
153w	6847.40	ambient	1.22	***	***	***	***	***	0.0	38.6	2.736	
153w	6847.40	2000	0.90	.0001	.001	359.07	1.41E+18	3.02E+05			2.736	
155	6848.60	ambient	1.85	***	***	***	***	***	1.9	36.6	2.738	
155	6848.60	2000	***	***	***	***	***	***				(2)
156w	6849.90	ambient	1.38	***	***	***	***	***	2.4	40.0	2.741	(5)
157w	6851.15	ambient	2.13	***	***	***	***	***	29.1	5.1	2.754	
157w	6851.15	2000	1.67	.0003	.001	143.88	1.08E+16	2.98E+04			2.754	
158w	6851.50	ambient	4.48	***	***	***	***	***	35.7	2.5	2.792	
158w	6851.50	2000	4.12	.001	.003	119.90	3.91E+15	1.84E+04			2.792	
159	6850.20	ambient	1.12	***	***	***	***	***	29.0	9.5	2.732	
159	6850.20	2000	1.04	.00004	.0002	239.78	1.76E+17	1.12E+05			2.732	
160	6850.50	ambient	1.03	***	***	***	***	***	6.8	26.1	2.728	
160	6850.50	2000	0.91	.00004	.0003	231.40	1.47E+17	1.03E+05			2.728	
161	6850.90	ambient	1.34	***	***	***	***	***	3.8	53.1	2.755	
161	6850.90	2000	1.19	.0002	.001	181.82	4.03E+16	5.64E+04			2.755	(1)
162	6851.60	ambient	1.21	***	***	***	***	***	33.9	22.2	2.698	
162	6851.60	2000	***	***	***	***	***	***				(2)
163	6852.10	ambient	5.48	***	***	***	***	***	18.2	4.3	2.699	
163	6852.10	2000	5.01	.003	.010	90.31	8.61E+14	9.05E+03			2.699	

Whiting Oil and Gas
Tully 16-9-36D
Emery County, Utah

CL File No.: DEN-120167
Date: 5/31/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability		b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation		Grain Density (g/cm3)	Footnote
				Klinkenberg (md)	Kair (md)				Oil % Pore Volume	Water % Pore Volume		
164	6852.50	ambient	1.93	***	***	***	***	***	1.4	58.8	2.739	(5)
165	6852.90	ambient	1.85	***	***	***	***	***	28.5	7.5	2.716	
165	6852.90	2000	1.45	.0001	.0005	194.52	5.72E+16	6.58E+04			2.716	
166	6853.40	ambient	0.64	***	***	***	***	***	0.0	58.7	2.760	
166	6853.40	2000	***	***	***	***	***	***				(2)
167	6854.45	ambient	1.65	***	***	***	***	***	0.0	81.9	2.766	
167	6854.45	2000	***	***	***	***	***	***				(2)
168	6855.10	ambient	1.35	***	***	***	***	***	7.3	67.5	2.783	
168	6855.10	2000	0.83	.0004	.002	189.27	4.96E+16	6.16E+04			2.783	(1)
169	6856.10	ambient	0.89	***	***	***	***	***	19.5	31.6	2.758	
169	6856.10	2000	***	***	***	***	***	***				(2)
170	6856.70	ambient	2.88	***	***	***	***	***	31.4	8.5	2.715	
170	6856.70	2000	2.59	.0002	.001	159.77	1.93E+16	3.94E+04			2.715	
171	6857.60	ambient	1.82	***	***	***	***	***	35.1	14.3	2.772	
171	6857.60	2000	0.90	.0001	.001	335.87	1.02E+18	2.61E+05			2.772	
172	6857.95	ambient	1.19	***	***	***	***	***	19.9	57.6	2.767	
172	6857.95	2000	***	***	***	***	***	***				(2)
173	6858.90	ambient	2.29	***	***	***	***	***	5.0	57.8	2.803	
173	6858.90	2000	1.87	.0000	.0001	329.73	9.36E+17	2.49E+05			2.803	
174	6860.10	ambient	1.26	***	***	***	***	***	0.0	50.1	2.752	(5)
175	6861.10	ambient	1.54	***	***	***	***	***	0.0	35.6	2.769	
175	6861.10	2000	0.43	.0001	.001	357.73	1.39E+18	3.01E+05			2.769	
176	6862.20	ambient	1.40	***	***	***	***	***	3.0	70.0	2.786	
176	6862.20	2000	1.25	.0001	.001	333.49	1.02E+18	2.62E+05			2.786	

Whiting Oil and Gas
Tully 16-9-36D
Emery County, Utah

CL File No.: DEN-120167
Date: 5/31/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
177	6863.90	ambient	3.81	***	***	***	***	***	29.9	3.8	2.837	
177	6863.90	2000	***	***	***	***	***	***				(2)
178	6864.60	ambient	5.23	***	***	***	***	***	38.5	9.8	2.814	
178	6864.60	2000	4.57	.001	.003	171.81	2.93E+16	4.80E+04			2.814	
179	6865.00	ambient	4.61	***	***	***	***	***	28.7	17.6	2.820	
179	6865.00	2000	3.91	.0002	.002	213.78	9.69E+16	8.46E+04			2.820	
180	6866.10	ambient	2.55	***	***	***	***	***	18.2	16.8	2.830	
180	6866.10	2000	***	***	***	***	***	***				(2)
181	6867.50	ambient	2.22	***	***	***	***	***	7.8	27.8	2.850	
181	6867.50	2000	2.11	.003	.010	88.62	7.68E+14	8.55E+03			2.850	(1)
182	6870.10	ambient	2.96	***	***	***	***	***	1.1	53.1	2.854	
182	6870.10	2000	2.78	.002	.009	102.91	1.71E+15	1.25E+04			2.854	(1)
183	6872.50	ambient	2.22	***	***	***	***	***	0.0	32.9	2.846	
183	6872.50	2000	1.62	.0001	.001	266.36	3.08E+17	1.46E+05			2.846	
184	6876.10	ambient	2.17	***	***	***	***	***	0.0	28.5	2.838	
184	6876.10	2000	2.13	.054	.115	29.46	5.56E+12	9.86E+02			2.838	(1)
185	6879.50	ambient	0.93	***	***	***	***	***	0.0	35.6	2.809	
185	6879.50	2000	0.13	.0001	.001	314.25	7.28E+17	2.21E+05			2.809	
186	6883.20	ambient	2.19	***	***	***	***	***	0.0	63.8	2.730	
186	6883.20	2000	1.32	.002	.008	110.29	2.50E+15	1.49E+04			2.730	(1)
187	6894.40	ambient	0.82	***	***	***	***	***	0.0	66.4	2.737	
187	6894.40	2000	***	***	***	***	***	***				(2)
188	6912.00	ambient	1.03	***	***	***	***	***	0.0	91.0	2.766	(5)
189	6917.90	ambient	0.46	***	***	***	***	***	0.0	92.9	2.756	

Whiting Oil and Gas
Tully 16-9-36D
Emery County, Utah

CL File No.: DEN-120167
Date: 5/31/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
189	6917.90	2000	***	***	***	***	***	***				(2)
190	6925.50	ambient	0.46	***	***	***	***	***	0.0	91.2	2.773	
190	6925.50	2000	***	***	***	***	***	***				(2)
191	6934.50	ambient	0.92	***	***	***	***	***	0.0	86.5	2.744	
191	6934.50	2000	***	***	***	***	***	***				(2)
192	6940.90	ambient	2.30	***	***	***	***	***	0.0	88.4	2.740	
192	6940.90	2000	1.58	.007	.023	68.76	2.08E+14	4.61E+03			2.740	(1)
193	6943.50	ambient	0.55	***	***	***	***	***	4.4	83.3	2.731	
193	6943.50	2000	***	***	***	***	***	***				(2)
194	6961.60	ambient	1.52	***	***	***	***	***	0.0	83.1	2.726	
194	6961.60	2000	1.33	.077	.117	13.59	9.98E+13	2.63E+04			2.726	(1)
195	6978.50	ambient	2.58	***	***	***	***	***	25.0	44.9	2.728	
195	6978.50	2000	1.39	1.64	1.73	1.01	4.68E+11	2.64E+03			2.728	(1)
196	6979.50	ambient	1.39	***	***	***	***	***	6.2	81.4	2.728	
196	6979.50	2000	1.24	.058	.095	17.20	1.45E+14	3.39E+04			2.728	(1)
197	6982.80	ambient	0.68	***	***	***	***	***	0.0	87.3	2.752	
197	6982.80	2000	***	***	***	***	***	***				(2)
198	6990.20	ambient	0.67	***	***	***	***	***	0.0	87.2	2.734	
198	6990.20	2000	0.15	.00003	.0002	245.66	2.02E+17	1.20E+05			2.734	
199	6992.30	ambient	0.63	***	***	***	***	***	0.0	82.1	2.750	
199	6992.30	2000	***	***	***	***	***	***				(2)
200	6996.50	ambient	0.50	***	***	***	***	***	0.0	92.6	2.748	
200	6996.50	2000	***	***	***	***	***	***				(2)
201	6998.30	ambient	1.36	***	***	***	***	***	0.0	87.7	2.765	

Whiting Oil and Gas
Tully 16-9-36D
Emery County, Utah

CL File No.: DEN-120167
Date: 5/31/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability		b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation		Grain Density (g/cm3)	Footnote
				Klinkenberg (md)	Kair (md)				Oil % Pore Volume	Water % Pore Volume		
201	6998.30	2000	***	***	***	***	***	***				(2)
202	7002.50	ambient	0.83	***	***	***	***	***	0.0	82.9	2.766	
202	7002.50	2000	***	***	***	***	***	***				(2)
203	7004.50	ambient	0.67	***	***	***	***	***	0.0	89.0	2.753	
203	7004.50	2000	***	***	***	***	***	***				(2)
204	7013.10	ambient	0.68	***	***	***	***	***	0.0	82.9	2.757	
204	7013.10	2000	***	***	***	***	***	***				(2)
205	7015.50	ambient	0.59	***	***	***	***	***	0.0	86.2	2.781	
205	7015.50	2000	***	***	***	***	***	***				(2)
206	7028.50	ambient	1.08	***	***	***	***	***	0.0	85.6	2.755	
206	7028.50	2000	***	***	***	***	***	***				(2)
207	7029.30	ambient	0.64	***	***	***	***	***	0.0	90.5	2.751	
207	7029.30	2000	***	***	***	***	***	***				(2)
208	7074.10	ambient	1.53	***	***	***	***	***	0.0	89.9	2.753	
208	7074.10	2000	***	***	***	***	***	***				(2)
209	7076.00	ambient	1.03	***	***	***	***	***	0.0	86.5	2.770	
209	7076.00	2000	***	***	***	***	***	***				(2)
210A	7178.50	ambient	4.86	***	***	***	***	***	0.0	34.8	2.803	
210A	7178.50	2000	4.07	.001	.006	121.96	4.34E+15	1.94E+04			2.803	
211	7180.15	ambient	10.57	***	***	***	***	***	0.0	32.0	2.793	
211	7180.15	2000	10.28	.385	.635	13.31	4.53E+11	5.55E+02			2.793	(1)
212	7182.70	ambient	4.23	***	***	***	***	***	0.0	39.0	2.698	
212	7182.70	2000	3.59	.0002	.002	231.71	1.53E+17	1.07E+05			2.698	
213	7184.90	ambient	9.63	***	***	***	***	***	0.0	18.8	2.801	

Whiting Oil and Gas
Tully 16-9-36D
Emery County, Utah

CL File No.: DEN-120167
Date: 5/31/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
213	7184.90	2000	9.15	.160	.252	14.03	7.18E+11	3.72E+02			2.801	
214	7186.10	ambient	12.57	***	***	***	***	***	0.0	22.0	2.833	
214	7186.10	2000	12.02	.168	.311	20.76	7.70E+11	4.21E+02			2.833	
215A	7188.65	ambient	3.02	***	***	***	***	***	0.0	41.0	2.805	
215A	7188.65	2000	2.50	.0003	.002	208.61	8.69E+16	8.18E+04			2.805	
216	7189.80	ambient	3.79	***	***	***	***	***	0.0	48.3	2.810	
216	7189.80	2000	3.30	.0004	.002	185.76	4.54E+16	5.97E+04			2.810	
217	7194.00	ambient	2.85	***	***	***	***	***	0.0	45.9	2.700	
217	7194.00	2000	2.73	.0002	.001	258.79	2.72E+17	1.39E+05			2.700	
218	7196.20	ambient	4.16	***	***	***	***	***	0.0	36.9	2.790	
218	7196.20	2000	3.79	.0004	.003	177.42	3.47E+16	5.18E+04			2.790	
219A	7198.40	ambient	5.08	***	***	***	***	***	0.0	26.4	2.764	
219A	7198.40	2000	4.95	.001	.006	118.76	3.72E+15	1.80E+04			2.764	
220	7200.50	ambient	4.18	***	***	***	***	***	0.0	38.9	2.840	
220	7200.50	2000	3.93	.0005	.003	172.39	2.92E+16	4.78E+04			2.840	
221	7202.05	ambient	5.37	***	***	***	***	***	0.0	38.3	2.847	
221	7202.05	2000	4.86	.002	.007	118.79	3.72E+15	1.80E+04			2.847	
222	7204.00	ambient	4.90	***	***	***	***	***	0.0	38.8	2.846	
222	7204.00	2000	4.69	.001	.007	117.21	3.50E+15	1.76E+04			2.846	
223	7206.00	ambient	3.41	***	***	***	***	***	0.0	29.1	2.849	
223	7206.00	2000	3.14	.036	.084	35.94	4.96E+13	5.74E+03			2.849	
224	7207.30	ambient	3.72	***	***	***	***	***	0.0	41.3	2.821	
224	7207.30	2000	3.65	.002	.008	111.24	2.62E+15	1.53E+04			2.821	
225	7212.00	ambient	6.44	***	***	***	***	***	0.0	30.9	2.837	

Whiting Oil and Gas
Tully 16-9-36D
Emery County, Utah

CL File No.: DEN-120167
Date: 5/31/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
225	7212.00	2000	5.11	.001	.006	124.60	4.86E+15	2.05E+04			2.817	
226	7212.55	ambient	5.65	***	***	***	***	***	0.0	20.9	2.809	
226	7212.55	2000	5.23	.003	.013	87.96	7.37E+14	8.38E+03			2.809	
227	7212.00	ambient	4.48	***	***	***	***	***	0.0	24.3	2.817	
227	7212.00	2000	***	***	***	***	***	***				(2)
228	7215.40	ambient	5.57	***	***	***	***	***	0.0	26.8	2.827	
228	7215.40	2000	5.21	.002	.009	103.28	1.74E+15	1.26E+04			2.827	
229	7218.00	ambient	4.94	***	***	***	***	***	0.0	28.0	2.849	
229	7218.00	2000	4.48	.002	.010	99.93	1.29E+15	1.02E+04			2.849	
230	7221.20	ambient	3.59	***	***	***	***	***	0.0	34.6	2.852	
230	7221.20	2000	3.14	.002	.007	117.45	3.53E+15	1.76E+04			2.852	
231	7222.70	ambient	3.04	***	***	***	***	***	0.0	41.1	2.877	
231	7222.70	2000	2.77	.002	.007	111.70	2.68E+15	1.55E+04			2.877	
232	7227.00	ambient	3.73	***	***	***	***	***	0.0	31.6	2.826	
232	7227.00	2000	3.62	.004	.014	83.86	5.76E+14	7.46E+03			2.826	(1)
233	7229.80	ambient	3.21	***	***	***	***	***	0.0	31.6	2.865	
233	7229.80	2000	2.87	.002	.009	101.41	1.58E+15	1.20E+04			2.865	(1)
234	7232.00	ambient	1.59	***	***	***	***	***	0.0	34.1	2.850	
234	7232.00	2000	1.23	.173	.295	17.26	8.79E+11	5.12E+02			2.850	(1)
235	7235.65	ambient	5.16	***	***	***	***	***	0.0	21.2	2.849	
235	7235.65	2000	4.87	.020	.049	42.86	7.19E+11	4.92E+01			2.849	
236	7238.40	ambient	5.18	***	***	***	***	***	0.0	30.1	2.853	
236	7238.40	2000	4.91	.003	.010	63.57	1.11E+14	1.79E+03			2.853	
237	7241.00	ambient	3.14	***	***	***	***	***	0.0	35.5	2.881	

Whiting Oil and Gas
Tully 16-9-36D
Emery County, Utah

CL File No.: DEN-120167
Date: 5/31/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability		b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation		Grain Density (g/cm3)	Footnote
				Klinkenberg (md)	Kair (md)				Oil % Pore Volume	Water % Pore Volume		
237	7241.00	2000	***	***	***	***	***	***				(2)
238	7243.70	ambient	4.37	***	***	***	***	***	0.0	22.0	2.848	
238	7243.70	2000	4.29	.004	.011	66.66	3.76E+14	5.53E+03			2.848	
239	7246.70	ambient	5.40	***	***	***	***	***	0.0	18.6	2.842	
239	7246.70	2000	5.01	.194	.323	16.12	2.81E+11	1.80E+02			2.842	(1)
240	7251.40	ambient	5.49	***	***	***	***	***	0.0	26.7	2.852	
240	7251.40	2000	5.37	.007	.022	61.08	1.16E+14	3.50E+03			2.852	
241	7254.00	ambient	3.42	***	***	***	***	***	0.0	21.8	2.868	
241	7254.00	2000	3.14	.0002	.001	180.18	3.86E+16	5.55E+04			2.868	
242	7256.60	ambient	6.33	***	***	***	***	***	0.0	17.1	2.837	
242	7256.60	2000	6.18	.017	.033	26.38	7.73E+12	4.71E+02			2.837	
243	7258.50	ambient	5.78	***	***	***	***	***	0.0	17.6	2.852	
243	7258.50	2000	5.60	.009	.025	57.88	8.94E+13	3.09E+03			2.852	
244	7263.80	ambient	4.57	***	***	***	***	***	0.0	31.0	2.856	
244	7263.80	2000	4.15	.001	.004	114.79	3.07E+15	1.65E+04			2.856	
245	7266.00	ambient	4.57	***	***	***	***	***	0.0	37.5	2.860	
245	7266.00	2000	4.28	.002	.008	88.98	7.79E+14	8.60E+03			2.860	
246	7268.30	ambient	1.93	***	***	***	***	***	0.0	26.0	2.846	(5)
247	7272.00	ambient	1.63	***	***	***	***	***	0.0	15.0	2.838	
247	7272.00	2000	1.28	.00004	.0003	231.27	7.58E+17	5.29E+05			2.838	
248	7275.00	ambient	1.25	***	***	***	***	***	0.0	51.8	2.832	
248	7275.00	2000	0.66	.00001	.0001	319.55	7.86E+17	2.29E+05			2.832	
249	7277.80	ambient	1.23	***	***	***	***	***	0.0	53.9	2.831	
249	7277.80	2000	0.77	.00003	.0002	276.49	2.95E+18	1.25E+06			2.831	

Whiting Oil and Gas
Tully 16-9-36D
Emery County, Utah

CL File No.: DEN-120167
Date: 5/31/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
250	7280.60	ambient	0.43	***	***	***	***	***	0.0	86.3	2.790	
250	7280.60	2000	***	***	***	***	***	***				(2)
251	7283.80	ambient	0.89	***	***	***	***	***	0.0	88.5	2.788	(5)
252	7285.90	ambient	0.30	***	***	***	***	***	0.0	85.7	2.667	(5)
253	7289.70	ambient	0.60	***	***	***	***	***	0.0	85.3	2.740	
253	7289.70	2000	***	***	***	***	***	***				(2)
254	7293.15	ambient	0.66	***	***	***	***	***	0.0	86.8	2.732	
254	7293.15	2000	***	***	***	***	***	***				
255	7295.90	ambient	1.14	***	***	***	***	***	0.0	78.7	2.758	(5)
256	7299.00	ambient	0.32	***	***	***	***	***	0.0	87.5	2.720	(5)
257	7302.10	ambient	0.49	***	***	***	***	***	0.0	86.1	2.741	
257	7302.10	2000	***	***	***	***	***	***				(2)
258	7304.30	ambient	0.68	***	***	***	***	***	0.0	88.2	2.783	(5)
259	7307.00	ambient	1.20	***	***	***	***	***	0.0	54.6	2.724	
259	7307.00	2000	***	***	***	***	***	***				(2)
260A	7310.25	ambient	1.69	***	***	***	***	***	0.0	51.2	2.692	
260A	7310.25	2000	0.91	.0004	.002	192.54	5.60E+16	6.62E+04			2.688	
261	7312.25	ambient	1.99	***	***	***	***	***	0.0	64.9	2.728	
261	7312.25	2000	1.31	.0004	.003	178.13	3.54E+16	5.25E+04			2.728	
262	7314.15	ambient	2.18	***	***	***	***	***	0.0	65.7	2.698	
262	7314.15	2000	1.88	.001	.006	118.57	3.72E+15	1.81E+04			2.698	
263	7316.40	ambient	2.48	***	***	***	***	***	0.0	60.0	2.698	
263	7316.40	2000	2.04	.002	.007	112.54	2.80E+15	1.58E+04			2.698	
264	7318.50	ambient	2.13	***	***	***	***	***	0.0	52.8	2.689	

Whiting Oil and Gas
Tully 16-9-36D
Emery County, Utah

CL File No.: DEN-120167
Date: 5/31/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
264	7318.50	2000	1.54	.039	.108	48.00	4.72E+13	6.08E+03			2.689	
265A	7320.25	ambient	2.23	***	***	***	***	***	0.0	53.3	2.693	
265A	7320.25	2000	1.86	.001	.005	132.57	6.95E+15	2.44E+04			2.693	(1)
266	7324.50	ambient	2.19	***	***	***	***	***	0.0	38.5	2.709	
266	7324.50	2000	1.70	.0004	.002	188.10	4.84E+16	6.13E+04			2.709	
267	7326.40	ambient	3.96	***	***	***	***	***	0.0	53.6	2.708	
267	7326.40	2000	***	***	***	***	***	***				(2)
268	7328.10	ambient	1.97	***	***	***	***	***	0.0	53.8	2.666	
268	7328.10	2000	1.48	.003	.012	90.44	8.59E+14	9.00E+03			2.666	
269A	7330.35	ambient	1.42	***	***	***	***	***	0.0	52.6	2.704	
269A	7330.35	2000	0.95	.001	.004	146.52	1.20E+16	3.13E+04			2.704	
270	7332.25	ambient	1.55	***	***	***	***	***	0.0	53.8	2.669	
270	7332.25	2000	1.06	.001	.004	144.81	1.12E+16	3.04E+04			2.669	
271	7334.15	ambient	1.15	***	***	***	***	***	0.0	38.1	2.712	
271	7334.15	2000	0.56	.001	.003	163.53	2.21E+16	4.19E+04			2.712	
272	7336.05	ambient	1.08	***	***	***	***	***	0.0	33.8	2.715	
272	7336.05	2000	0.37	.001	.004	150.79	1.41E+16	3.38E+04			2.715	
273	7338.00	ambient	1.23	***	***	***	***	***	0.0	37.3	2.688	
273	7338.00	2000	0.96	.001	.004	150.83	1.41E+16	3.38E+04			2.688	
274A	7340.05	ambient	1.37	***	***	***	***	***	0.0	36.8	2.708	
274A	7340.05	2000	0.82	.002	.008	112.42	2.77E+15	1.57E+04			2.708	
275	7342.05	ambient	1.44	***	***	***	***	***	0.0	35.0	2.700	
275	7342.05	2000	0.84	.002	.007	112.96	2.85E+15	1.59E+04			2.700	
276	7344.05	ambient	1.13	***	***	***	***	***	0.0	35.6	2.719	

Whiting Oil and Gas
Tully 16-9-36D
Emery County, Utah

CL File No.: DEN-120167
Date: 5/31/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
276	7344.05	2000	0.47	.001	.004	152.33	1.49E+16	3.47E+04			2.719	
277	7346.05	ambient	1.24	***	***	***	***	***	0.0	30.0	2.728	
277	7346.05	2000	0.48	.001	.005	134.53	7.47E+15	2.50E+04			2.728	
278	7348.30	ambient	1.13	***	***	***	***	***	0.0	52.5	2.717	
278	7348.30	2000	***	***	***	***	***	***				(2)
279A	7350.55	ambient	4.25	***	***	***	***	***	0.0	56.2	2.773	
279A	7350.55	2000	3.65	.001	.004	148.07	1.26E+16	3.21E+04			2.773	
280	7352.05	ambient	1.33	***	***	***	***	***	0.0	32.7	2.671	
280	7352.05	2000	0.72	.0005	.003	172.82	2.98E+16	4.82E+04			2.671	
281	7354.10	ambient	1.29	***	***	***	***	***	0.0	31.4	2.695	
281	7354.10	2000	0.75	.002	.008	107.57	2.18E+15	1.40E+04			2.695	
282	7356.10	ambient	1.78	***	***	***	***	***	0.0	46.6	2.677	
282	7356.10	2000	1.10	.100	.123	5.91	8.20E+12	2.67E+03			2.677	(1)
283	7358.10	ambient	1.54	***	***	***	***	***	0.0	59.0	2.691	
283	7358.10	2000	1.08	.001	.006	119.20	3.82E+15	1.82E+04			2.691	

Footnotes :

(1) : Denotes fractured or chipped sample. Permeability and/or porosity may be optimistic.

(2) : Sample permeability below the measurement range of CMS-300 equipment at indicated net confining stress (NCS). Data unavailable.

(3) : Denotes very short sample, porosity may be optimistic due to lack of conformation of boot material to plug surface.

(4) : Sample contains bitumen or other solid hydrocarbon residue.

(5) : Denotes sample unsuitable for measurement at stress. Porosity determined using Archimedes bulk volume at ambient conditions.

Permeability greater than 0.1 mD measured using helium gas. Permeability less than 0.1 mD measured using nitrogen gas. All b values converted to b (air)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-52222

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Tully 16-9-36D

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER:
43015500030000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER:
303 390-4095 Ext

9. FIELD and POOL or WILDCAT:
WILDCAT

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0860 FNL 0856 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NWNW Section: 36 Township: 16.0S Range: 09.0E Meridian: S

COUNTY:
EMERY

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 8/21/2013	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	✓ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Whiting Oil and Gas Corporation requests permission to temporarily abandon this well pending further evaluation.

Approved by the Utah Division of Oil, Gas and Mining

Date: October 30, 2013

By: Dark K Quist

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Pauleen Tobin	303 390-4267	Engineer Tech
SIGNATURE		**DATE**
N/A		8/21/2013

RECEIVED: Aug. 21, 2013

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43015500030000

In accordance with rule R649-3-36, well may be shut-in or temporarily abandoned for 12 consecutive months without approval.

RECEIVED: Oct. 30, 2013

GARY R. HERBERT
Governor
SPENCER J. COX
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

June 5, 2014

Certified Mail No. 7003 2260 0003 2358 7158

43 015 50003
Tully 16-9-36D
16S 9E 36

Mr. John D'Hooge
Whiting Oil & Gas Corporation
1700 Broadway Suite 2300
Denver, CO 80290

Subject: Extended Shut-in and Temporary Abandon Well Requirements for Fee or State Leases

Dear Mr. John D'Hooge:

As of April 2014, Whiting Oil & Gas Corporation (Whiting) has ten (10) State Lease Wells (see attachment A) that are currently in non-compliance with the requirements for extended shut-in or temporarily abandoned (SI/TA) status. Seven (7) of these wells have previously received notices with nothing being done or shown by Whiting to bring into compliance status.

The Division was preparing to issue Notices of Violation for all wells listed above. However, during the meeting with the Division on June 3, 2014, Whiting verbally noted its plans concerning these wells. Whiting stated that five (5) of the wells will be plugged, one (1) being evaluated for water disposal, one (1) being evaluated for up hole potential, and the remaining three (3) to be returned to production.

Whiting needs to submit individual sundry's for each well, detailing plans and near future timeframe for work to be accomplished. Additionally, the wells that are candidates for plugging need to have a plugging procedure and a scheduled date for PA submitted for approval. All other wells will need to meet the requirements per the rules below.

Wells SI/TA beyond twelve (12) consecutive months requires filing a Sundry Notice (R649-3-36-1). Wells with five (5) years non-activity or non-productivity shall be plugged, unless the Division grants approval for extended shut-in time upon a showing of good cause by the operator (649-3-36-1.3.3). For extended SI/TA consideration the operator shall provide the Utah Division of Oil, Gas & Mining with the following:

1. Reasons for SI/TA of the well (R649-3-36-1.1).

2. The length of time the well is expected to be SI/TA (R649-3-36-1.2), and

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR OIL, GAS & MINING

3. An explanation and supporting data if necessary, for showing the well has integrity, meaning that the casing, cement, equipment condition, static fluid level, pressure, existence or absence of Underground Sources of Drinking Water and other factors do not make the well a risk to public health and safety or the environment (R649-3-36-1.3).

Please note that the Divisions preferred method for showing well integrity is by MIT.

Submitting the information suggested below may help show well integrity and may help qualify your well for extended SI/TA. **Note: As of July 1, 2003, wells in violation of the SI/TA rule R649-3-36 may be subject to full cost bonding (R649-3-1-4.2, 4.3).**

1. Wellbore diagram, and
2. Copy of recent casing pressure test, and
3. Current pressures on the wellbore (tubing pressure, casing pressure, and casing/casing annuli pressure) showing wellbore has integrity, and
4. Fluid level in the wellbore, and
5. An explanation of how the submitted information proves integrity.

If the required information is not received by July 1, 2014, Notices of Violation will be issued and further actions may be initiated. If you have any questions concerning this matter, please contact me at (801) 538-5281.

Sincerely,

Dustin K. Doucet
Petroleum Engineer

DKD/JP/js

cc: Compliance File
Well File
LaVonne Garrison, SITLA

N:\O&G Reviewed Docs\ChronFile\PetroleumEngineer\SITA

ATTACHMENT A

	Well Name	API	LEASE	Years Inactive	Prior Notices
1	CHIMNEY ROCK 32-11	43-047-33445	ML-47437	6 years 8 months	NOV
2	FLAT ROCK 13-32-14-20	43-047-36992	ML-44317	12 years 6 months	2ND NOTICE
3	FLAT ROCK 14-32-14-20	43-047-36993	ML-44317	12 years 5 months	2ND NOTICE
4	FLAT ROCK 15-32-14-20	43-047-36994	ML-44317	12 years 5 months	2ND NOTICE
5	STATE 16H-32-15-12	43-007-31482	ML-49797	4 years 5 months	1ST NOTICE
6	CARBON CANAL 5-12	43-015-30709	ML-49116	6 years	2ND NOTICE
7	UTE TRIBAL 32-1A	43-047-32758	ML-44317	4 years 2 months	2ND NOTICE
8	UTE TRIBAL 32-3A	43-047-33334	ML-44317	3 years 1 month	
9	UTE TRIBAL 32-4A	43-047-33335	ML-44317	3 years	
→ 10	TULLY 16-9-36D	43-015-50003	ML-52222	1 year 1 month	

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-52222

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER: Tully 16-9-36D

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER: 43015500030000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER: 303 390-4095 Ext

9. FIELD and POOL or WILDCAT: WILDCAT

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0860 FNL 0856 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NWNW Section: 36 Township: 16.0S Range: 09.0E Meridian: S

COUNTY: EMERY

STATE: UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
✓ SUBSEQUENT REPORT Date of Work Completion: 8/21/2013	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	✓ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Well temporarily abandoned. CIBP set @ 6703.5' with 2 sxs of cement dumped on top of the plug.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
July 03, 2014

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Cara Mezydlo	303 876-7091	Engineering Technician
SIGNATURE		**DATE**
N/A		7/1/2014

RECEIVED: Jul. 01, 2014

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-52222

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
Tully 16-9-36D

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER:
43015500030000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER:
303 390-4095 Ext

9. FIELD and POOL or WILDCAT:
WILDCAT

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0860 FNL 0856 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NWNW Section: 36 Township: 16.0S Range: 09.0E Meridian: S

COUNTY:
EMERY

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 9/1/2014	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	✓ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Please see the attached Plug and Abandonment proposal.

Approved by the Utah Division of Oil, Gas and Mining

Date: August 21, 2014

By: Dark K Quist

Please Review Attached Conditions of Approval

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Cara Mezydlo	303 876-7091	Engineering Technician
SIGNATURE		**DATE**
N/A		7/29/2014

RECEIVED: Jul. 29, 2014

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43015500030000

1. Notify the Division at least 24 hours prior to conducting abandonment operations. Please call Dan Jarvis at 801-538-5338. 2. Add Plug #1: A minimum of 100' (±20 sx) shall be spotted on the CIBP @ 6703'.

3. Add Plug #2: A 200' plug (±40 sx) shall be balanced from ±5500' to 5300'. This will isolate the base of the Navajo Formation.

4. Amend Plug #3: This plug shall be moved uphole 300' and balanced from 3800' to 3700'.

5. All balanced plugs shall be tagged to ensure that they are at the depth specified.

6. All annuli shall be cemented from a minimum depth of 100' to the surface.

7. Surface reclamation shall be done in accordance with R649-3-34 – Well Site Restoration.

8. All requirements in the Oil and Gas Conservation General Rule R649-3-24 shall apply.

9. If there are any changes to the procedure or the wellbore configuration, notify Dustin Doucet at 801-538-5281 (ofc) or 801-733-0983 (home) prior to continuing with the procedure.

10. All other requirements for notice and reporting in the Oil and Gas Conservation General Rules shall apply.

RECEIVED: Aug. 21, 2014

8/6/2014

Wellbore Diagram

r263

API Well No: 43-015-50003-00-00 **Permit No:** **Well Name/No:** Tully 16-9-36D

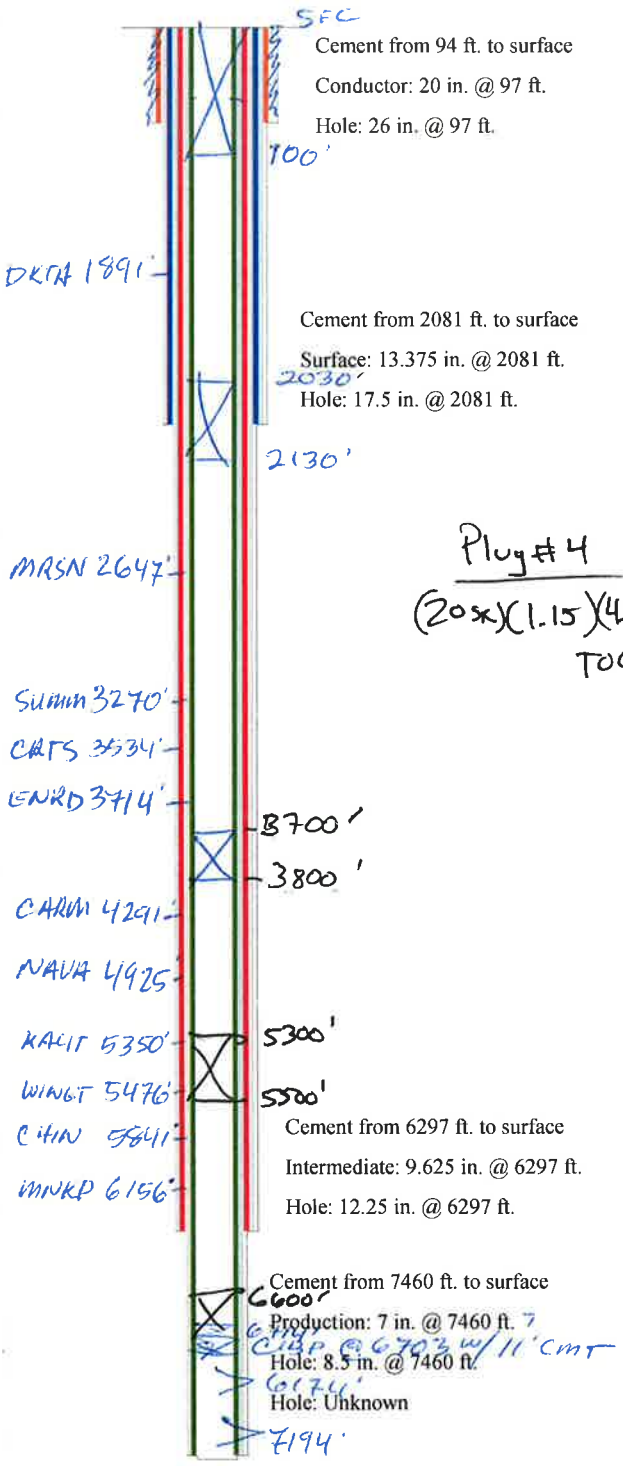
Company Name: WHITING OIL & GAS CORPORATION

Location: Sec: 36 T: 16S R: 9E Spot: NWNW

Coordinates: X: 511339 Y: 4360531

Field Name: WILDCAT

County Name: EMERY



TD: 7480 **TVD:** 7480 **PBTD:** 6765

String Information

String	Bottom (ft sub)	Diameter (inches)	Weight (lb/ft)	Length (ft)
HOL1	97	26		
COND	97	20	94	97
HOL2	2081	17.5		
SURF	2081	13.375	54.5	2081
HOL3	6297	12.25		
I1	6297	9.625	47	6297
HOL4	7460	8.5		
PROD	7460	7	29	7460
CIBP	6703			

(0.2085)4.794

Plug # 5

(20sx)(1.15)(4.794) = 110'

TOC @ SFC

V.O.K

Cement Information

String	BOC (ft sub)	TOC (ft sub)	Class	Sacks
CIBP	6703		UK	2
COND	94	0		
I1	6297	0	UK	1470
PROD	7460	0	UK	665
SURF	2081	0	PL	1510

Perforation Information

Top (ft sub)	Bottom (ft sub)	Shts/Ft	No Shts	Dt Squeeze
6714	6729			
6772	6784			
7180	7194			

*MOVE Plug # 3 (3800' to 3700')

(20sx)(1.15)(4.794) = 110

TOC @ 3700'

V.O.K.

Formation Information

Formation	Depth
DKTA	1891
MRSN	2647
SUMM	3270
CRTS	3534
ENRD	3714
CARM	4291
NAVA	4925
KAYT	5350
WINGT	5476
CHIN	5841
MNKP	6156

*Add Plug # 2

(40sx)(1.15)(4.794) = 220'

TOC @ 5300'

Spot across Base of NAVAJO 5500 to 5300'

*Add Plug # 1A

Top CIBP @ 6703 w/ 100' (± 20sx) Cement

Tully No. 16-9-36D
API No. 4301550003
Section 36, T16S, R9E
Emery County, Utah

Whiting Oil and Gas respectfully requests approval to plug and abandon the Tully No. 16-9-36D well. The well is currently shut-in.	
1.	Advise the Utah DOGM 48 hours before plugging operations commence.
2.	TIH with tubing. Displace the hole with clean heavy produced water or 9.0 ppg mud.
3.	Spot a 20 sack Class “G” balanced cement plug from approximately 4100’ to 4000’.
4.	Spot a 20 sack Class “G” balanced cement plug from approximately 2130’ to 2030’. (Base of surface casing)
5.	Spot a 20 sack Class “G” balanced cement plug from approximately 100’ to 0’. Note, the 7” – 9 5/8” annulus was cemented to surface with the 7” production casing.
6.	Cut and remove the casing head. Install a regulation dry hole marker.
7.	Clean and restore the location, weather permitting.

RECEIVED: Jul. 29, 2014

Lease Review All CR

Well Name: TULLY 16-9-36D

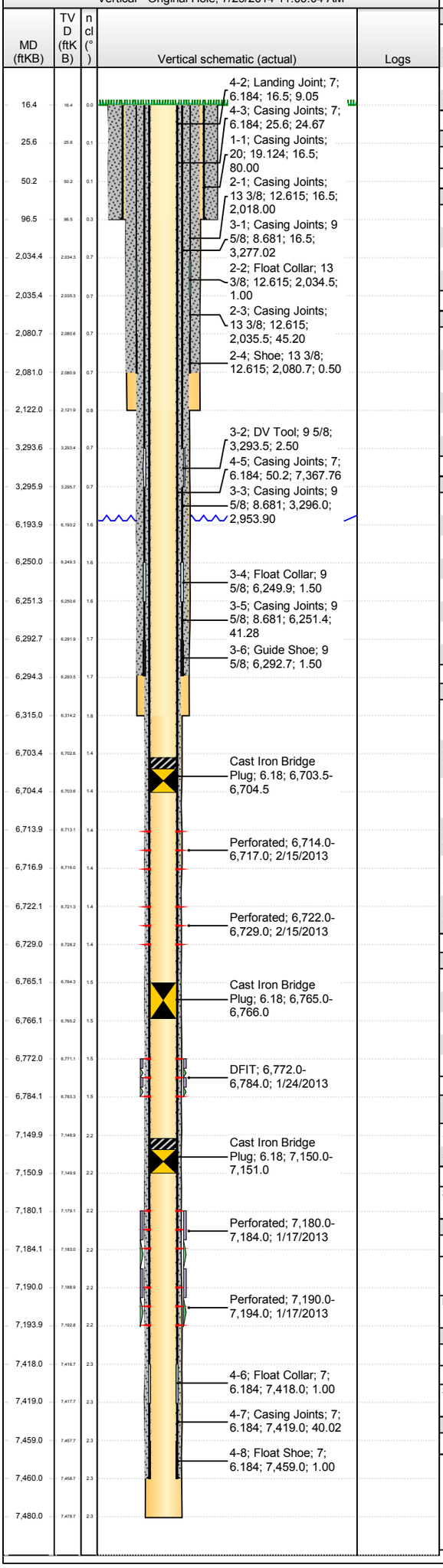
API Number	WPC ID	Well Permit Number	Field Name	County	State
43015500030000	1UT029802		Wildcat	Emery	UT

Well Configuration Type	Orig KB Elv (ft)	Ground Elevation (ft)	Casing Flange Elevation (ft)	Tubing Head Elevation (ft)	Total Depth (ftKB)
Vertical	5,887.60	5,871.10			7,480.0

Original Spud Date	Completion Date	Asset Group	Responsible Engineer	N/S Dist (ft)	N/S Ref	E/W Dist (ft)	E/W Ref
12/7/2012	3/5/2013	Central Rockies Asset Group	Jared Huckabee	860.0	FNL	856.0	FWL

Lot	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Section Suffix	Section Type	Township	Township N/S Dir	Range	Range E/W Dir	Meridian
	NW	NW			36			16	S	9	E	S

Vertical - Original Hole, 7/29/2014 11:00:04 AM



Wellbore Sections

Wellbore Name	Start Date	Size (in)	Act Top (ftKB)	Act Btm (ftKB)
Original Hole	11/30/2012	26	16.5	96.5
Original Hole	12/7/2012	17 1/2	96.5	2,122.0
Original Hole	12/14/2012	12 1/4	2,122.0	6,315.0
Original Hole	12/24/2012	8 1/2	6,315.0	7,480.0

Conductor Pipe, 96.5ftKB

OD (in)	Wt (lb/ft)	Grade	Top (ftKB)	Btm (ftKB)	Len (ft)	Item Des
20	94.00	H-40	16.5	96.5	80.00	Casing Joints

Surface Csg, 2,081.2ftKB

OD (in)	Wt (lb/ft)	Grade	Top (ftKB)	Btm (ftKB)	Len (ft)	Item Des
13 3/8	54.50	J-55	16.5	2,034.5	2,018.00	Casing Joints
13 3/8	54.50	J-55	2,034.5	2,035.5	1.00	Float Collar
13 3/8	54.50	J-55	2,035.5	2,080.7	45.20	Casing Joints
13 3/8	54.50	J-55	2,080.7	2,081.2	0.50	Shoe

Intermediate Csg, 6,294.2ftKB

OD (in)	Wt (lb/ft)	Grade	Top (ftKB)	Btm (ftKB)	Len (ft)	Item Des
9 5/8	47.00	L-80	16.5	3,293.5	3,277.02	Casing Joints
9 5/8			3,293.5	3,296.0	2.50	DV Tool
9 5/8	47.00	L-80	3,296.0	6,249.9	2,953.90	Casing Joints
9 5/8			6,249.9	6,251.4	1.50	Float Collar
9 5/8	47.00	L-80	6,251.4	6,292.7	41.28	Casing Joints
9 5/8			6,292.7	6,294.2	1.50	Guide Shoe

Production Csg, 7,460.0ftKB

OD (in)	Wt (lb/ft)	Grade	Top (ftKB)	Btm (ftKB)	Len (ft)	Item Des
7	29.00	HCL-80	16.5	16.5	0.00	Casing Joints
7	29.00	HCL-80	16.5	25.6	9.05	Landing Joint
7	29.00	HCL-80	25.6	50.2	24.67	Casing Joints
7	29.00	HCL-80	50.2	50.2	0.00	Casing Joints
7	29.00	HCL-80	50.2	7,418.0	7,367.76	Casing Joints
7	29.00	HCL-80	7,418.0	7,419.0	1.00	Float Collar
7	29.00	HCL-80	7,419.0	7,459.0	40.02	Casing Joints
7	29.00	HCL-80	7,459.0	7,460.0	1.00	Float Shoe

Cement Stages

Des	Pump Start Date	Drill Out Date	Top (ftKB)	Btm (ftKB)	Top Meas Meth
Conductor Cement	12/1/2012		16.5	96.5	Returns to Surface
Surface Casing Cement	12/12/2012		16.5	2,081.2	Returns to Surface
Intermediate Casing Cement	12/23/2012		16.5	3,296.0	Pipe measurement
Intermediate Casing Cement	12/23/2012		3,296.0	6,294.2	Volume Calculations
Production Casing Cement	1/2/2013		16.5	6,194.0	Volume Calculations
Production Casing Cement	1/2/2013		6,194.0	7,460.0	Volume Calculations

Perforations

Type of Hole	Date	Top (ftKB)	Btm (ftKB)	Zone
Perforated	2/15/2013	6,714.0	6,717.0	Moenkopi, Original Hole
Perforated	2/15/2013	6,722.0	6,729.0	Moenkopi, Original Hole
DFIT	1/24/2013	6,772.0	6,784.0	Sinbad Mbr, Original Hole
Perforated	1/17/2013	7,180.0	7,184.0	Kaibab, Original Hole
Perforated	1/17/2013	7,190.0	7,194.0	Kaibab, Original Hole

Stim/Treat Stages

Stage Type	Start Date	Top (ftKB)	Btm (ftKB)	Stim/Treat Fluid	Vol Clean Pump (bbl)
Acidization	1/18/2013	7,180.0	7,194.0	500 gals 15%, Acid	
Acidization	2/4/2013	6,772.0	6,784.0	2000 gals 15% HCl, Acid	

<des> set at <depthbtm>ftKB on <dttmrun>

Set Depth (ftKB)	Comment	Run Date	Pull Date

Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Jts	Len (ft)	Top (ftKB)	Btm (ftKB)

Rod Strings

<des> on <dttmrun>

Rod Description	Run Date	Pull Date

Item Des	OD (in)	Wt (lb/ft)	Grade	Jts	Len (ft)	Top (ftKB)	Btm (ftKB)

Other Strings

Set Depth (ftKB)	Comment	Run Date	Pull Date

Item Des	OD (in)	ID (in)	Len (ft)	Top (ftKB)	Btm (ftKB)

Lease Review All CR

Well Name: TULLY 16-9-36D

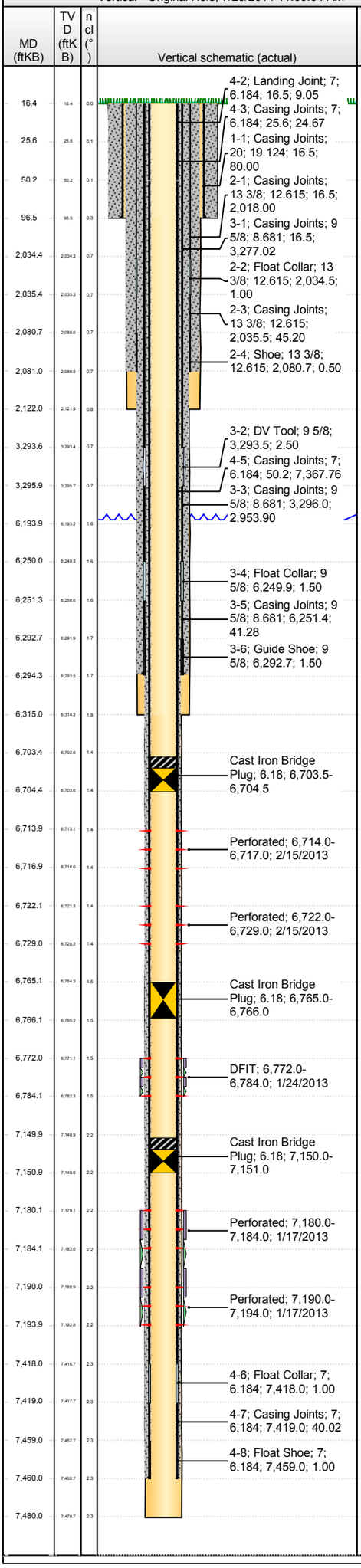
API Number	WPC ID	Well Permit Number	Field Name	County	State
43015500030000	1UT029802		Wildcat	Emery	UT

Well Configuration Type	Orig KB Elv (ft)	Ground Elevation (ft)	Casing Flange Elevation (ft)	Tubing Head Elevation (ft)	Total Depth (ftKB)
Vertical	5,887.60	5,871.10			7,480.0

Original Spud Date	Completion Date	Asset Group	Responsible Engineer	N/S Dist (ft)	N/S Ref	E/W Dist (ft)	E/W Ref
12/7/2012	3/5/2013	Central Rockies Asset Group	Jared Huckabee	860.0	FNL	856.0	FWL

Lot	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Section Suffix	Section Type	Township	Township N/S Dir	Range	Range E/W Dir	Meridian
	NW	NW			36			16	S	9	E	S

Vertical - Original Hole, 7/29/2014 11:00:04 AM



Other In Hole

Des	OD (in)	ID (in)	Run Date	Pull Date	Top (ftKB)	Btm (ftKB)
2 mandels, Jars, sinker bar	6.184		2/6/2013	2/14/2013	6,543.0	6,726.9
Cast Iron Bridge Plug	6.184		3/5/2013		6,703.5	6,704.5
Cast Iron Bridge Plug	6.184		2/15/2013		6,765.0	6,766.0
Cast Iron Bridge Plug	6.184		1/24/2013		7,150.0	7,151.0

Bottom Hole Cores

Date	Core #	Top (ftKB)	Btm (ftKB)	Recov (ft)
12/25/2013	1	6,670.0	6,850.0	180.0
12/26/2013	2	6,850.0	7,030.0	180.0
12/27/2013	3	7,030.0	7,210.0	180.0
12/28/2013	4	7,210.0	7,308.0	98.0
12/29/2013	5	7,308.0	7,359.0	51.0

RECEIVED: Jul. 29, 2014

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-52222

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL

8. WELL NAME and NUMBER: Tully 16-9-36D

2. NAME OF OPERATOR: WHITING OIL & GAS CORPORATION

9. API NUMBER: 43015500030000

3. ADDRESS OF OPERATOR: 1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER: 303 390-4095 Ext

9. FIELD and POOL or WILDCAT: WILDCAT

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0860 FNL 0856 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 36 Township: 16.0S Range: 09.0E Meridian: S

COUNTY: EMERY

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☑ SUBSEQUENT REPORT Date of Work Completion: 12/16/2014	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☑ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

P&A subject well as follows: 1. Pressure tested casing to 1000# for 15 min. 2. Tagged CIBP @ 6717'. 3. Rolled hole clean with corrosion inhibited fluid. 4. Balanced a 20 sk cement plug from 6717' to 6615'. Confirmed TOC with wireline. 5. Balanced a 40 sk cement plug from 5500' to 5270'. Confirmed TOC with wireline. 6. Balanced a 20 sk cement plug from 3800' to 3677'. Confirmed TOC with wireline. 7. Balanced a 20 sk cement plug from 2130' to 2029'. Confirmed TOC with wireline. 8. Balanced a 20 sk cement plug from 110' to surface. 9. Cut csg off 10' below ground level, welded on regulation dry hole marker, and backfilled. Note: Please see attached cementing reports for cement plug details.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
January 13, 2015

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Cara Mezydlo	303 876-7091	Engineering Technician
SIGNATURE		**DATE**
N/A		1/9/2015

RECEIVED: Jan. 09, 2015

Job Summary

Whiting Oil & Gas Corp
1700 Broadway, Suite 2300
Denver, CO 80290
(303) 837-1661

Well Name: TULLY 16-9-36D

Plug & Abandon
Job Started on 12/7/2014

WPC ID	API Number	Field Name	County	State	Operator	Gr Elev (ft)	Orig KB El...
1UT029802	43015500030000	Wildcat	Emery	UT	WOGC	5,871.10	5,887.60

AFE Number	Total AFE Amount (Cost)	Supp Amt (Cost)	Total AFE + Supp Amount (Cost)	AFE-Field Estimate (Cost)
14-3782	99,500.00		99,500.00	15,231.00

Job Category	Job Type	Working Interest (%)	Total Fld Est (Cost)	Start Date	End Date
Plug & Abandon	Plug & Abandon	100.00	84,269.00	12/7/2014	

Daily Operation Reports (6am to 6am)

Job Day (days)	Rpt #	Start Date	End Date	Summary
1.0	1.0	12/7/2014	12/8/2014	Moved in Red Rock Well Service rig #2 and support equipment from Flat Rock area. Spotted rig and equipment off the side of location have to install spill containment on location before well service rig can be rigged up. Will install containment and rig up equipment in the AM.
2.0	2.0	12/8/2014	12/9/2014	SICP = 10 psi. Notified Dan Jarvis with UDOGM by voicemail @ 7:35am of our intent to pump cement and P&A well on 12-10-14. Installed spill containment liners, RU Red Rock Well Service rig #2 and spotted in support equipment. Bled off well, removed master valve, and installed Weatherford 7-1/16" 5K BOPE. CSG standing full of fluid, pressure tested CSG to 1030 psi, held for 15 minutes, good test no leak off. Tallied and RIH with 2-7/8" notched collar and 195 JTS 2-7/8" 6.5# N-80 TBG, EOT @ 6342'. Secured wellhead and SDFN.
3.0	3.0	12/9/2014	12/10/2014	SICP = 0 psi. RIH with another 12 JTS 2-7/8" 6.5# N-80 TBG, tagged BP @ 6717', laid down 1 JT TBG and spaced out with pup JTS. EOT @ 6715'. Added 55 GAL WSCR-202 Corrosion Inhibitor and 15 GAL Dantogard 2000 Biocide to 390 BBL fresh water and mixed with rig pump. Displaced wellbore fluid with 240 BBL treated water. Laid down pup JTS and POOH with 10 JTS 2-7/8" 6.5# N-80 TBG EOT @ 6372'. Secured wellhead and SDFN. Pro-Petro Cementers will arrive in the AM.
4.0	4.0	12/10/2014	12/11/2014	SICP = 0 psi. RIH with 10 JTS 2-7/8" 6.5# N-80 TBG, picked up 18' of pup JTS, EOT @ 6716'. RU Pro-Petro Cementers pumped 5 BBL fresh water, 4.1 BBL 20 sks neat G CMT (15.8# 1.15 yield 2% Cacl2 accelerator added), 1 BBL fresh water, 37.2 BBL treated water. Laid down 5 jts TBG, EOT @ 6537', reversed out with 58 BBL treated water. POOH with another 32 JTS TBG, picked up 4' pup JT (EOT @ 5500') waited 2 1/2 hours. RIH with wireline tagged cement top @ 6615'. POOH pumped 5 BBL fresh water, 8.2BBL 40 sks neat G CMT (15.8# 1.15 yield 2% Cacl2 accelerator added), 1 BBL fresh water, 29.4 BBL treated water. Laid down 12 JTS TBG (EOT @ 5104'), reversed out with 47.7 BBL treated water. POOH with another 40 JTS of TBG, picked up 4' pup JT (EOT @ 3800'). Waited 2 1/2 hours, RIH with wireline, tagged cement top @ 5270', POOH. Pumped 5 BBL fresh water, 4.1 BBL 20 sks neat G CMT (15.8# 1.15 yield 2% Cacl2 accelerator added), 1 BBL fresh water, 20.3 BBL treated water. Laid down 6 JTS TBG (EOT @ 3614'), reversed out with 33 BBL treated water. POOH with another 30 JTS TBG (EOT @ 2803'). Secured wellhead and SDFN.
5.0	5.0	12/11/2014	12/12/2014	SICP = 0 psi. POOH with 22 JTS of TBG, picked up 8' pup JT (EOT @ 2130'). RIH with wireline, tagged cement top @ 3677', POOH. Pumped 5 BBL fresh water, 4.1 BBL 20 sks neat G CMT 15.8# 1.15 yield 2% CaCl2 accelerator added, 1 BBL fresh water, 10.6 BBL treated water. Laid down 6 JTS TBG EOT @ 1932' reversed out with 17.5 BBL treated water. POOH with another 56 JTS of TBG, picked up 18' pup JT EOT @ 110'. Waited 2 1/2 hours, RIH with wireline tagged cement top @ 2029'. POOH, rigged down and released wireline. Pumped 1 BBL fresh water, 4.1 BBL 20 sks neat G CMT 15.8# 1.15 yield w/ 2% Cacl2 accelerator added. Cement returns to surface. POOH with 3 JTS TBG, removed and washed out BOPE. Installed B1 adapter flange and master valve, shut in and secured wellhead. Rigged down and released cement crew, racked out 2-7/8" work string on side of location and rigged down service unit. Moved rig and support equipment to Nielsons Construction yard. There were no UDOGM inspectors present during P&A operations.
9.0	6.0	12/15/2014	12/16/2014	SICP = 0 psi. Cleaned and removed spill containment liners. Removed cellar ring and excavated hole for wielders to work, cut thru 13-3/8" CSG, 9 5/8" CSG, 7" CSG 10' below GL and removed wellhead assembly. Found good cement to surface on CSG annulus, attached regulation dry hole marker and welded out. Should have 5' of dry hole marker above GL after reclamation. SDFN.
10.0	7.0	12/16/2014	12/17/2014	SICP = 0 psi. Back filled dry hole marker, dug out then removed guy wire anchors and back filled holes. Loaded out wellhead onto hotshot trailer, hauled off trash basket, pit liners and wellhead fencing. Location ready for reclamation.

RECEIVED: Jan. 09, 2015

Lease Review All - CR

Well Name: TULLY 16-9-36D

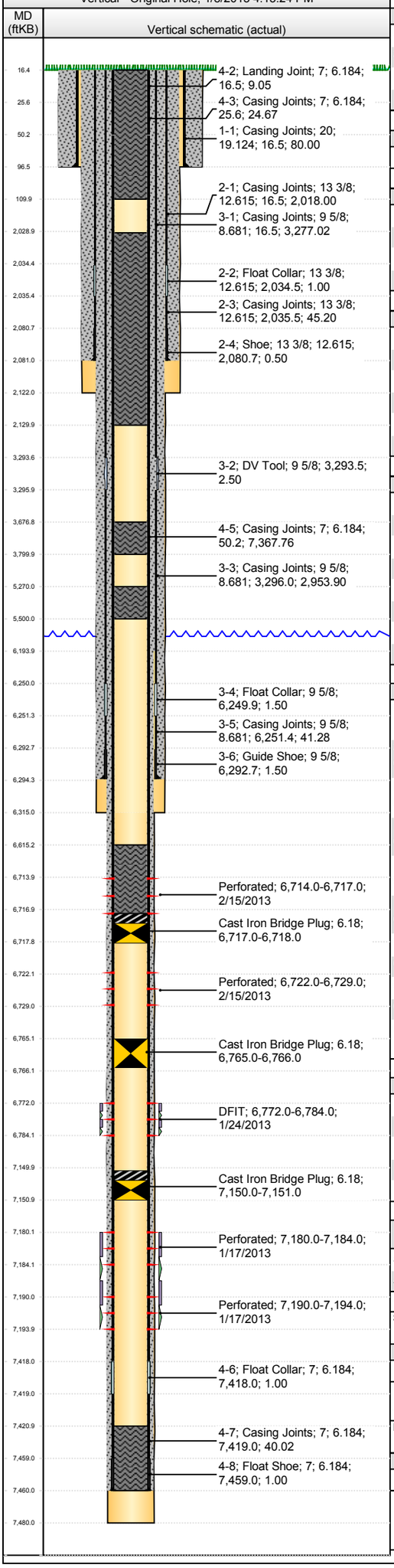
API Number	WPC ID	Well Permit Number	Field Name	County	State
43015500030000	1UT029802		Wildcat	Emery	UT

Well Configuration Type	Orig KB Elv (ft)	Ground Elevation (ft)	Casing Flange Elevation (ft)	Tubing Head Elevation (ft)	Total Depth (ftKB)
Vertical	5,887.60	5,871.10			7,480.0

Original Spud Date	Completion Date	Asset Group	Responsible Engineer	N/S Dist (ft)	N/S Ref	E/W Dist (ft)	E/W Ref
12/7/2012	3/5/2013	Central Rockies	Jared Huckabee	860.0	FNL	856.0	FWL

Lot	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Section Suffix	Section Type	Township	Township N/S Dir	Range	Range E/W Dir	Meridian
	NW	NW			36			16	S	9	E	S

Vertical - Original Hole, 1/8/2015 4:13:24 PM



Wellbore Sections

Section Des	Wellbore Name	Start Date	Size (in)	Act Top (ftKB)	Act Btm (ftKB)
Conductor	Original Hole	11/30/2012	26	16.5	96.5
Surface	Original Hole	12/7/2012	17 1/2	96.5	2,122.0
Intermediate	Original Hole	12/14/2012	12 1/4	2,122.0	6,315.0
Production	Original Hole	12/24/2012	8 1/2	6,315.0	7,480.0

Conductor Pipe, 96.5ftKB

OD (in)	ID (in)	Wt (lb/ft)	Grade	Top (ftKB)	Btm (ftKB)	Len (ft)	Item Des
20	19.124	94.00	H-40	16.5	96.5	80.00	Casing Joints

Surface Csg, 2,081.2ftKB

OD (in)	ID (in)	Wt (lb/ft)	Grade	Top (ftKB)	Btm (ftKB)	Len (ft)	Item Des
13 3/8	12.615	54.50	J-55	16.5	2,034.5	2,018.00	Casing Joints
13 3/8	12.615	54.50	J-55	2,034.5	2,035.5	1.00	Float Collar
13 3/8	12.615	54.50	J-55	2,035.5	2,080.7	45.20	Casing Joints
13 3/8	12.615	54.50	J-55	2,080.7	2,081.2	0.50	Shoe

Intermediate Csg, 6,294.2ftKB

OD (in)	ID (in)	Wt (lb/ft)	Grade	Top (ftKB)	Btm (ftKB)	Len (ft)	Item Des
9 5/8	8.681	47.00	L-80	16.5	3,293.5	3,277.02	Casing Joints
9 5/8				3,293.5	3,296.0	2.50	DV Tool
9 5/8	8.681	47.00	L-80	3,296.0	6,249.9	2,953.90	Casing Joints
9 5/8				6,249.9	6,251.4	1.50	Float Collar
9 5/8	8.681	47.00	L-80	6,251.4	6,292.7	41.28	Casing Joints
9 5/8				6,292.7	6,294.2	1.50	Guide Shoe

Production Csg, 7,460.0ftKB

OD (in)	ID (in)	Wt (lb/ft)	Grade	Top (ftKB)	Btm (ftKB)	Len (ft)	Item Des
7	6.184	29.00	HCL-80	16.5	16.5	0.00	Casing Joints
7	6.184	29.00	HCL-80	16.5	25.6	9.05	Landing Joint
7	6.184	29.00	HCL-80	25.6	50.2	24.67	Casing Joints
7	6.184	29.00	HCL-80	50.2	50.2	0.00	Casing Joints
7	6.184	29.00	HCL-80	50.2	7,418.0	7,367.76	Casing Joints
7	6.184	29.00	HCL-80	7,418.0	7,419.0	1.00	Float Collar
7	6.184	29.00	HCL-80	7,419.0	7,459.0	40.02	Casing Joints
7	6.184	29.00	HCL-80	7,459.0	7,460.0	1.00	Float Shoe

Cement Stages

Des	Pump Start Date	Drill Out Date	Top (ftKB)	Btm (ftKB)	Top Meas Meth
Conductor Cement	12/1/2012		16.5	96.5	Returns to Surface
Surface Casing Cement	12/12/2012		16.5	2,081.2	Returns to Surface
Intermediate Casing Cement	12/23/2012		16.5	3,296.0	Pipe measurement
Intermediate Casing Cement	12/23/2012		3,296.0	6,294.2	Volume Calculations
Production Casing Cement	1/2/2013		16.5	6,194.0	Volume Calculations
Production Casing Cement	1/2/2013		6,194.0	7,460.0	Volume Calculations
Cement Plug	12/10/2014		6,615.0	6,717.0	Wireline Tag
Cement Plug	12/10/2014		5,270.0	5,500.0	Wireline Tag
Cement Plug	12/10/2014		3,677.0	3,800.0	Wireline Tag
Cement Plug	12/11/2014		2,029.0	2,130.0	Wireline Tag
Cement Plug	12/11/2014		16.4	110.0	Returns to Surface

Perforations

Type of Hole	Date	Top (ftKB)	Btm (ftKB)	Zone
Perforated	2/15/2013	6,714.0	6,717.0	Moenkopi, Original Hole
Perforated	2/15/2013	6,722.0	6,729.0	Moenkopi, Original Hole
DFIT	1/24/2013	6,772.0	6,784.0	Sinbad Mbr, Original Hole
Perforated	1/17/2013	7,180.0	7,184.0	Kaibab, Original Hole
Perforated	1/17/2013	7,190.0	7,194.0	Kaibab, Original Hole

Stim/Treat Stages

Stage Type	Start Date	Top (ftKB)	Btm (ftKB)	Stim/Treat Fluid	Vol Clean Pump (bbl)
Acidization	1/18/2013	7,180.0	7,194.0	500 gals 15%, Acid	
Acidization	2/4/2013	6,772.0	6,784.0	2000 gals 15% HCl, Acid	

<des> set at <depthbtm>ftKB on <dttmrun>

Set Depth (ftKB)	Comment	Run Date	Pull Date

Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Jts	Len (ft)	Top (ftKB)	Btm (ftKB)

Rod Strings

<des> on <dttmrun>

Rod Description	Run Date	Pull Date

Item Des	OD (in)	Grade	Jts	Len (ft)	Top (ftKB)	Btm (ftKB)

Lease Review All - CR

Well Name: TULLY 16-9-36D

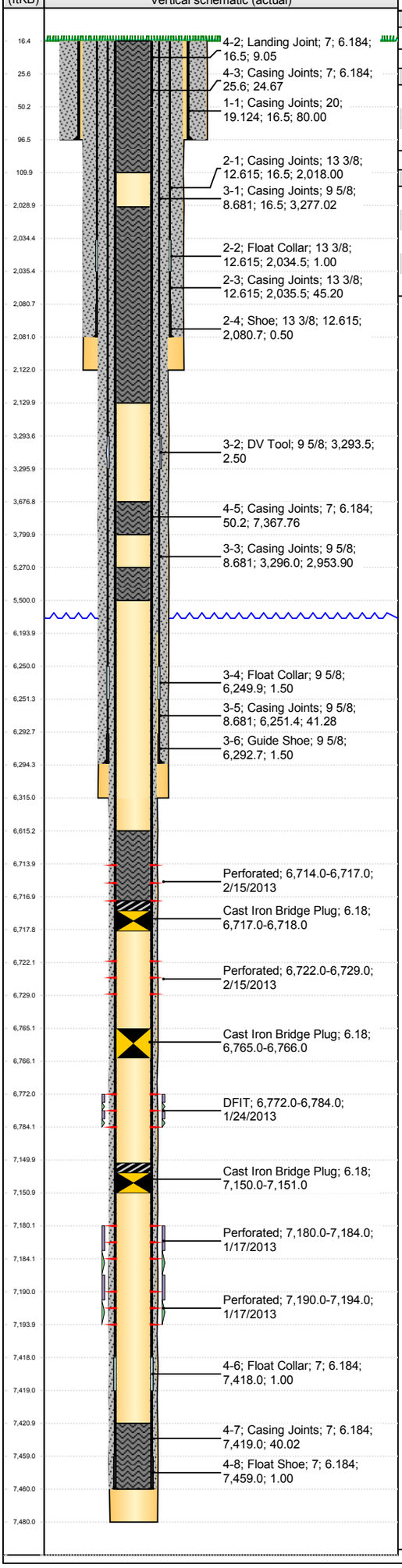
API Number	WPC ID	Well Permit Number	Field Name	County	State
43015500030000	1UT029802		Wildcat	Emery	UT

Well Configuration Type	Orig KB Elv (ft)	Ground Elevation (ft)	Casing Flange Elevation (ft)	Tubing Head Elevation (ft)	Total Depth (ftKB)
Vertical	5,887.60	5,871.10			7,480.0

Original Spud Date	Completion Date	Asset Group	Responsible Engineer	N/S Dist (ft)	N/S Ref	E/W Dist (ft)	E/W Ref
12/7/2012	3/5/2013	Central Rockies	Jared Huckabee	860.0	FNL	856.0	FWL

Lot	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Section Suffix	Section Type	Township	Township N/S Dir	Range	Range E/W Dir	Meridian
	NW	NW			36			16	S	9	E	S

Vertical - Original Hole, 1/8/2015 4:13:24 PM



Other Strings

Set Depth (ftKB)	Comment	Run Date	Pull Date

Item Des	OD (in)	ID (in)	Len (ft)	Top (ftKB)	Btm (ftKB)

Other In Hole

Des	OD (in)	ID (in)	Run Date	Pull Date	Top (ftKB)	Btm (ftKB)
Cast Iron Bridge Plug	6.184		3/5/2013		6,717.0	6,718.0
Cast Iron Bridge Plug	6.184		2/15/2013		6,765.0	6,766.0
Cast Iron Bridge Plug	6.184		1/24/2013		7,150.0	7,151.0

Bottom Hole Cores

Date	Core #	Top (ftKB)	Btm (ftKB)	Recov (ft)
12/25/2013	1	6,670.0	6,850.0	180.0
12/26/2013	2	6,850.0	7,030.0	180.0
12/27/2013	3	7,030.0	7,210.0	180.0
12/28/2013	4	7,210.0	7,308.0	98.0
12/29/2013	5	7,308.0	7,359.0	51.0

RECEIVED: Jan. 09, 2015

PROPETRO
P.O. Box 827 • Vernal, UT 84078
Phone: (435) 789-1735

8878

JOB SUMMARY REPORT

Customer			Date	Ticket Number
Whiting Oil & Gas Company			12-10-2014	
Lease & Well Name	**Sec.**	**Twp.**	**Range**	**County**
Tully 16-9-36D				Carbon
Job Type			**Drilling Contractor**	
Plug & Abandon			Red Rock #2	

	Wt./Grade	Thread	Depth From	To
Surface CSG Size				
Inter CSG Size				
Prod. CSG Size 7"	29 #	8 Rd	0	6716'
Liner CSG Size				
TBG or D.P. Size 2 7/8	6.5 #	8 Rd	0	6716'

	SKS	Materials Furnished	Slurry Wt. P.P.G.	Slurry Yield FT³	Water Gal./Sk.
12-10-14	80	100% Neat G CMT, 2% CaCl²	15.8	1.15	5
12-11-14	40	100% Neat G CMT, 2% CaCl²	15.8	1.15	5

Float Equipment
N/A

Equipment & Personnel
Paul 1172, Peter 10, Jarom 65/68

Notes
1st Plug set @ 6606' - 6716' (E.O.T. 6716') }
2nd Plug set @ 5280' - 5500' (E.O.T. 5500') } 12-10-14
3rd Plug set @ 3690' - 3900' (E.O.T. 3800') }
4th Plug set @ 2020' - 2130' (E.O.T. 2130') }
5th Plug set @ 0 - 110' (E.O.T. 110') } 12-11-14

PROPETRO

P.O. Box 827 • Vernal, UT 84078
Phone: (435) 789-1735

8645

Date 12-10, 2014

For Whiting Oil and Gas Company

Lease Tully 16-9-36D Rig No. Red Rock #2

JOB LOG

TIME	DESCRIPTION	RATE	PSI	VOLUME
07:15	On location - Rig Up - Safety Mtg			
	Pressure Test Pump & Lines			
09:12	Start H_2O - 1st Plug - (E.O.T. 6716')	2	175	0
	END			5
9:17	Start Neat G CMT @ 2% $CaCl^2$ 20sks	3	400	0
	END			4.1
9:18	Start H_2O	3	375	0
	END			1
9:19	Start Treated Water	5	550	0
	END - (Balanced plug from 6606' to 6716')			37.2
9:47	Reverse	5	800	0
	END			58.3
	2nd Plug - (E.O.T. 5500')			
12:50	Start H_2O	4	400	0
	END			5
12:55	Start Neat G CMT @ 2% $CaCl^2$ 40 sks	4	475	0
	END			8.2
12:57	Start H_2O	4	220	0
	END			1
12:58	Start Treated Water	5	450	0
	END - (Balanced Plug from 5280' to 5500')			29.4
13:35	Start Reverse	5	700	0
	END			47.7
	3rd Plug - (E.O.T. 3800')			
16:20	Start H_2O	4	400	0
	END			5
16:25	Start Neat G CMT @ 2% $CaCl^2$ 20 sks	3	300	0
	END			4.1
16:27	Start H_2O	3	250	0
	END			1

Operator Paul Accepted and approved by

PROPETRO

P.O. Box 827 • Vernal, UT 84078
Phone: (435) 789-1735

8646

Date 12-10, 20 14

For Whiting Oil & Gas Company

Lease Tully 16-9-36D Rig No. Red Rock #2

JOB LOG

TIME	DESCRIPTION	RATE	PSI	VOLUME
	3rd Plug Continued			
16:27	Start Treated H_2O	4.5	375	0
	END - (Balanced plug from 3690'-3800')			20.3
16:49	Reverse	5	500	0
	END			33.5
	Rigging down & fan off			
17:30	END			
	Released from location			

Operator Paul Accepted and approved by

PROPETRO

P.O. Box 827 • Vernal, UT 84078
Phone: (435) 789-1735

8647

Date 12-11, 20 14

For Whiting Oil & Gas Co.

Lease Tully 16-9-36D Rig No.

JOB LOG

TIME	DESCRIPTION	RATE	PSI	VOLUME
07:30	On location - Rig Up - Safety Mtg			
08:44	Start H_2O - 4th Plug - (E.O.T. 2130')	3	100	0
	END			5
8:50	Start Neat G CMT @ 2% $CaCl^2$ 20sks	4	250	0
	END			4.1
8:51	Start H_2O	4	225	0
	END			1
8:51	Start Treated H_2O	5	300	0
	END - (Balanced plug from 2020' to 2130')			10.6
9:05	Reverse	5	425	0
	END			17.5
	5th Plug			
11:15	Start H_2O	2	20	0
	END			1
11:20	Start Neat G CMT @ 2% $CaCl^2$ 20sks	3	100	0
	END			4.1
	Rig crew nipple down BOP & wash up			
12:20	END - CMT stayed full			
	Cement crew rig down			
12:45	END			
	Released from location			

Operator Paul Accepted and approved by

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-52222

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL

8. WELL NAME and NUMBER: Tully 16-9-36D

2. NAME OF OPERATOR: WHITING OIL & GAS CORPORATION

9. API NUMBER: 43015500030000

3. ADDRESS OF OPERATOR: 1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER: 303 390-4095 Ext

9. FIELD and POOL or WILDCAT: WILDCAT

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0860 FNL 0856 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 36 Township: 16.0S Range: 09.0E Meridian: S

COUNTY: EMERY

STATE: UTAH

11.

CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 4/30/2015	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	✓ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Per landowner request, the Tully 16-9-36D will be reclaimed in the Spring 2015, in the following manner: 1. Cattle guard and gates will remain in place 2. The gravel road to the well site will stay as is, and culverts left in place. 3. The well site will be returned to the natural slope, with natural top soil. 4. No rock will be hauled in. 5. Well site and sides of road that have been damaged will be reseeded with Russian Wildrye and Forage Kochia. Please see attached landowner request. The operations supervisor on this well is Scott Swain, reachable at (435) 781-1804 office, (435) 299-0414 cell, or scott.swain@whiting.com.

Accepted by the Utah Division of Oil, Gas and Mining

Date: January 30, 2015

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Cara Mezydlo	303 876-7091	Engineering Technician
SIGNATURE		**DATE**
N/A		1/9/2015

RECEIVED: Jan. 09, 2015

To whom it may concern the original lease between Whitening Oil Company and pervious land owners Mark and Angie Austin was put in place May of 2012. In July of 2014 Robert and Josie Ramstetter purchased the land.

Poison Springs #16-9-36D, Lands NW/4NW/4, Section 36, Township 16 South, Range 9 East, Emery County, Utah.

For reclaiming the oil well site owners would like as followed:

Cattle guard and gates stay the same.

Gravel road going to well sight stays as is and culverts left in place.

The well site returned to the natural slope with natural top soil.

No rocks hauled in for (natural placement).

Receding well site and sides of road that have been damaged.

Seed Type: Russian Wild Rye and Forage Koshia.

12-22-2014

Robert Ramstetter

12-22-2014

Josie Ramstetter

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-52222

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL

8. WELL NAME and NUMBER: Tully 16-9-36D

2. NAME OF OPERATOR: WHITING OIL & GAS CORPORATION

9. API NUMBER: 43015500030000

3. ADDRESS OF OPERATOR: 1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER: 303 390-4095 Ext

9. FIELD and POOL or WILDCAT: WILDCAT

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0860 FNL 0856 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 36 Township: 16.0S Range: 09.0E Meridian: S

COUNTY: EMERY

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
✓ SUBSEQUENT REPORT Date of Work Completion: 8/25/2014	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: Pit Closure

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Whiting Oil and Gas Corporation has closed the pit on this location and received approval from Mark Jones on 8/25/14. Attached are photos showing the pit closure and soil testing.

Accepted by the Utah Division of Oil, Gas and Mining

Date: November 02, 2015

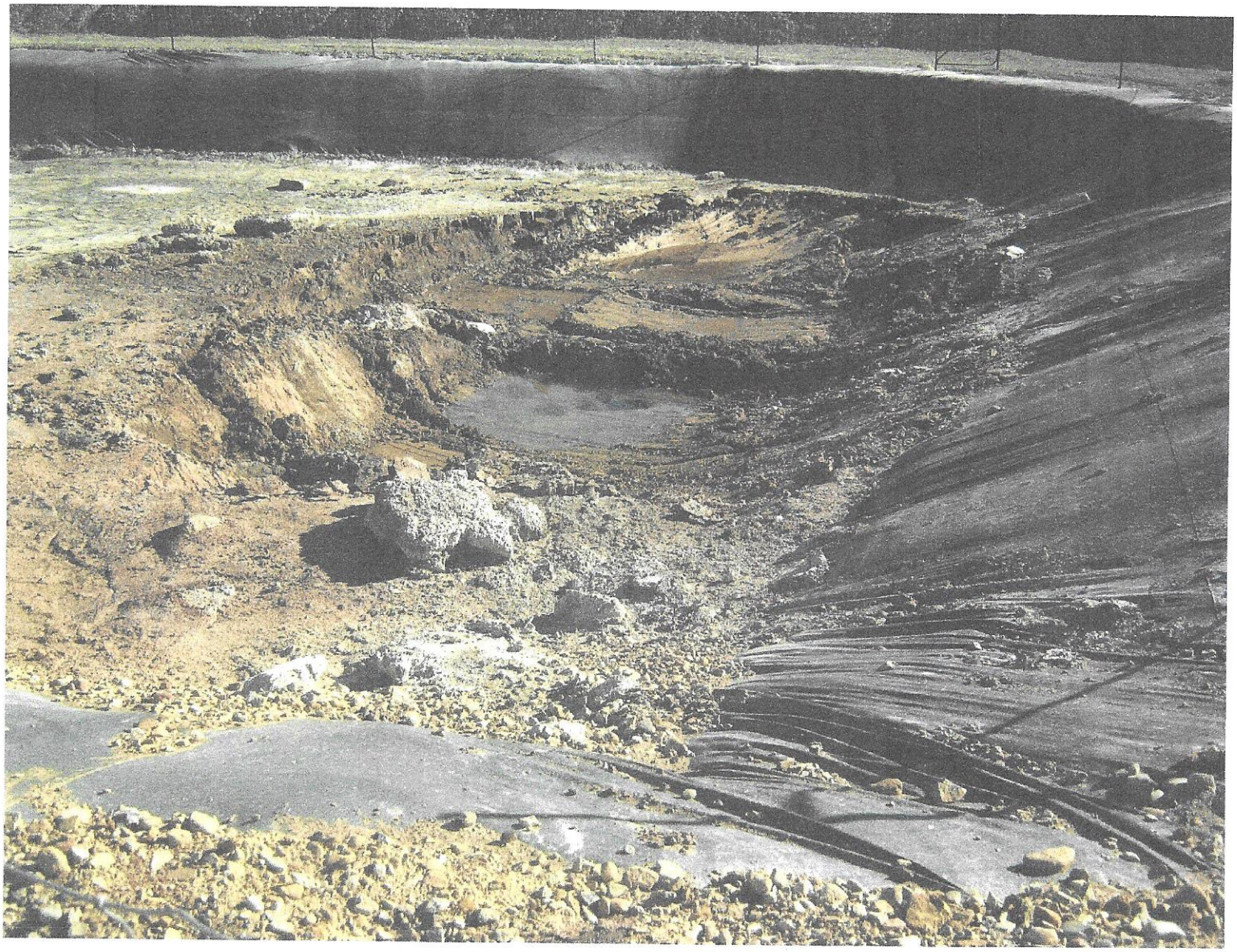
By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Cara Mezydlo	303 876-7091	Engineering Technician
SIGNATURE		**DATE**
N/A		6/17/2015

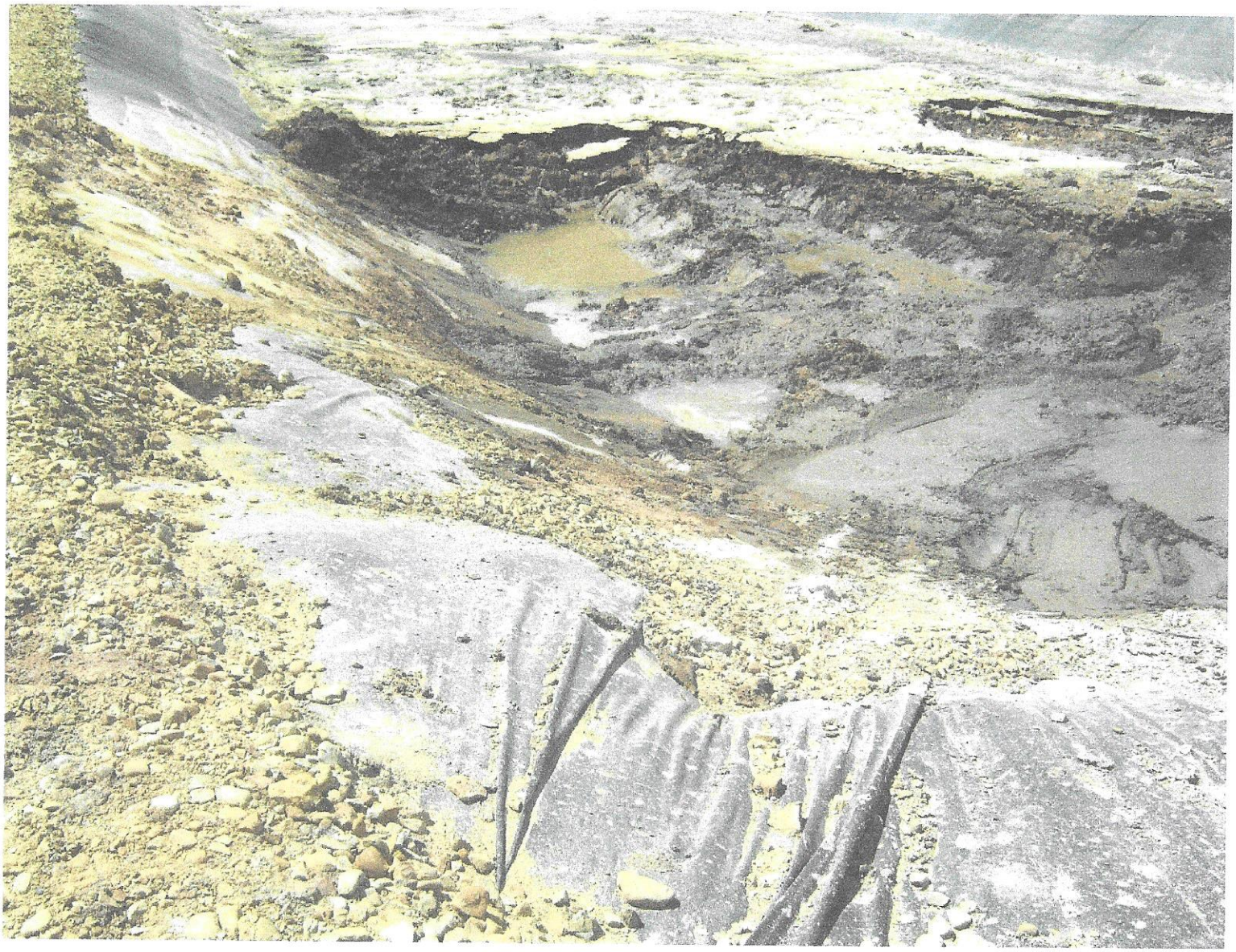
RECEIVED: Jun. 17, 2015

Pit

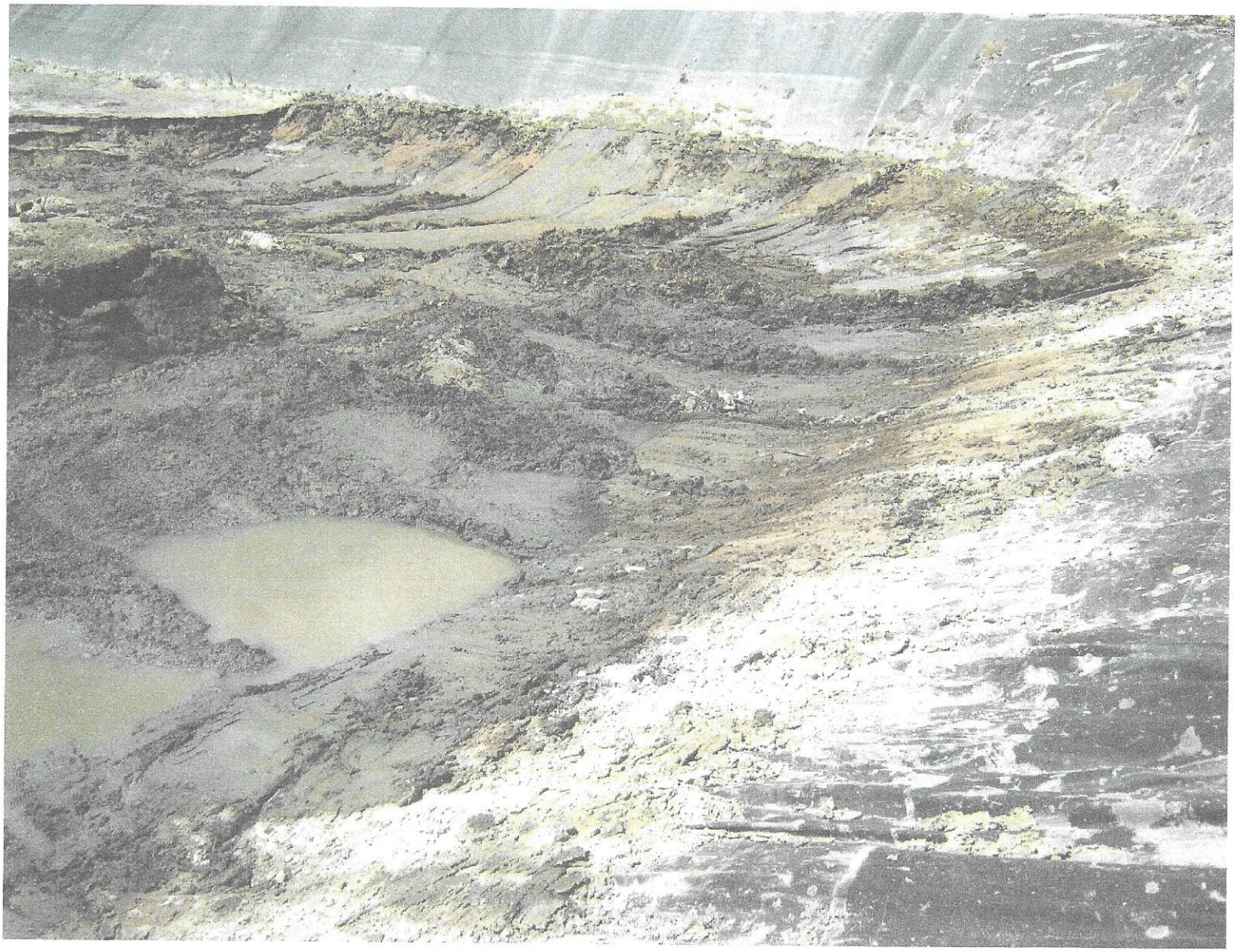
Sundry Number: 63971 API Well Number: 43015500030000



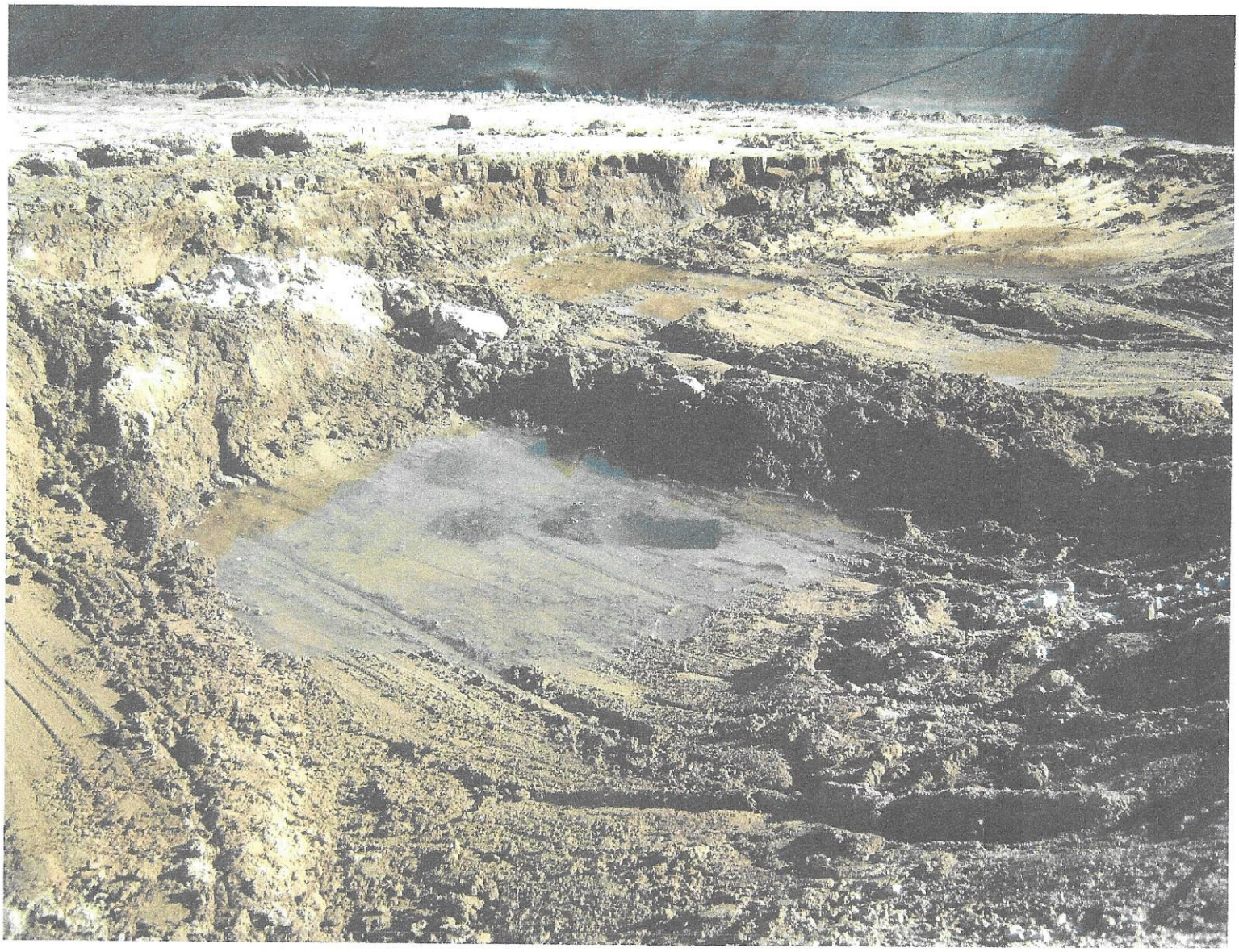
Pit



PIT

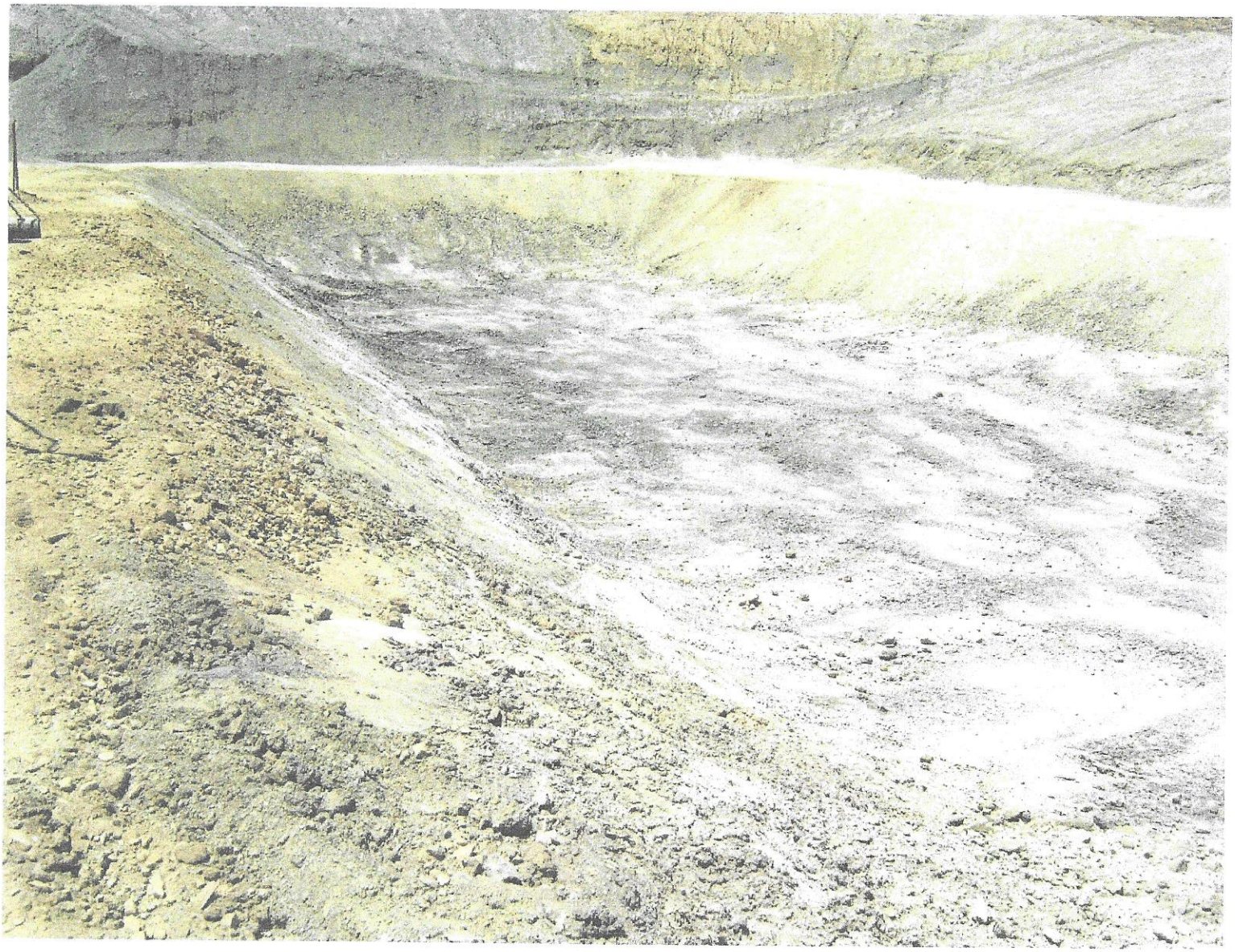


Pit liner exposed



Stick piling mud -
as per State request

Pit after cleaned out



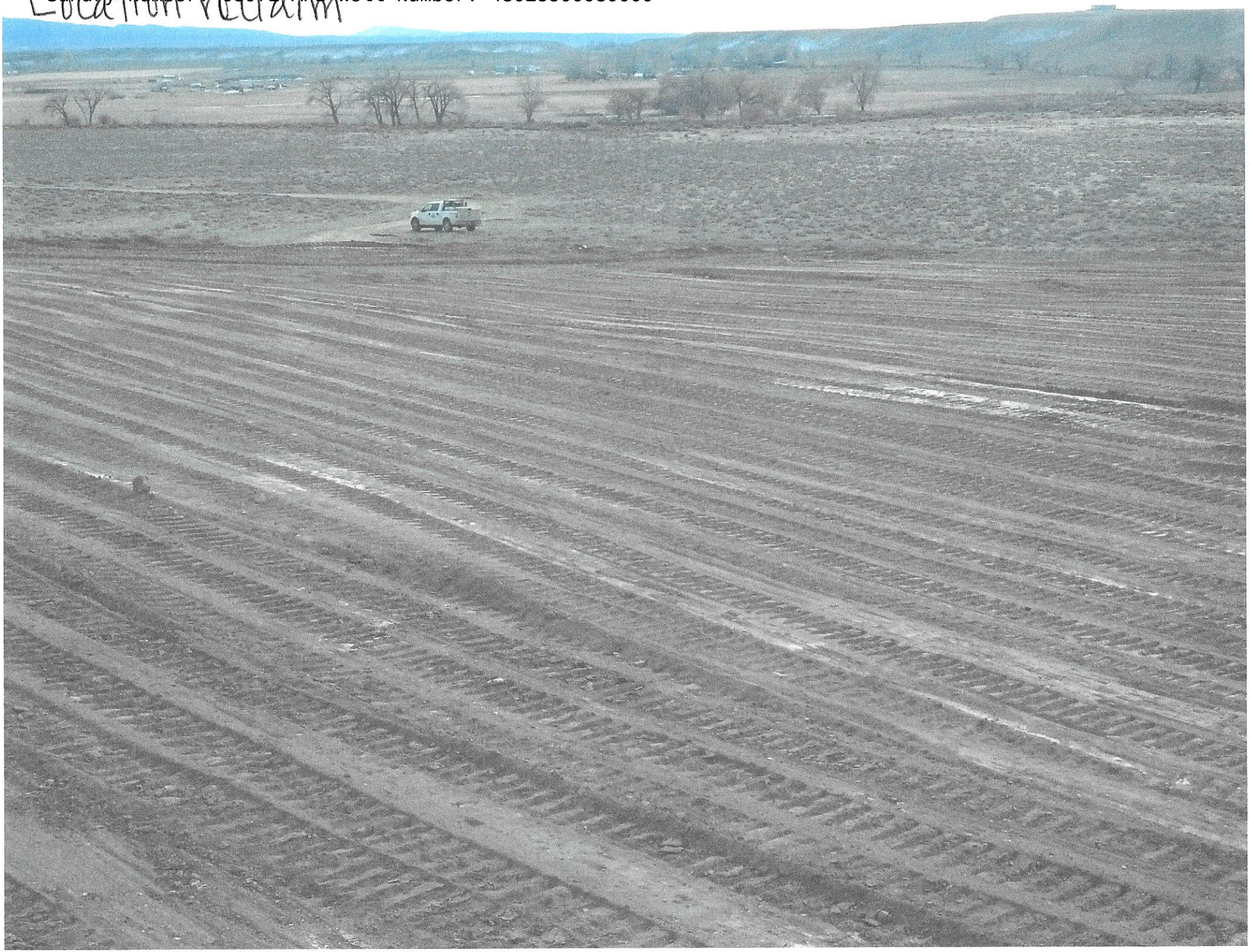
Pit after cleaned out

Pit liner removed


Location reclaim

Sundry Number: 63971 API Well Number: 43015500030000

Location reclaim



Location reclaim

Sundry Number: 63971 API Well Number: 43015500030000

Sundry Number: 63971 API Well Number: 43015500030000

Sundry Number: 63971 API Well Number: 43015500030000

>
> On Jul 7, 2014, at 9:47 AM, "Heather Otterstetter" <hotterstetter@ltenv.com<mailto:hotterstetter@ltenv.com>> wrote:
>
> Scott,
> See the attached guidance from the state that Sam sent over. FYI-the SAR, ESP, and conductivity results are at the back of the lab report since it was sub'd out. Looks like the SAR, ESP, and EC results are over the limit. Would you like me to put together a table?
>
> Heather Otterstetter, P.E.
> Project Engineer/Group Manager
> 303-962-5516 (direct)
>
> From: Sam LaRue [mailto:slarue@ltenv.com]
> Sent: Tuesday, July 01, 2014 3:33 PM
> To: Heather Otterstetter
> Subject: RE: Pace Project 60172423, Wellington Drill Pit Sampling
>
> Are we still waiting on the SAR, ESP and conductivity reports then? Surprising that the non pit samples had TPH. Based on the UDOGM recommended abandonment levels none of the samples exceed UDOGM Total TPH levels of 1% or 10,000ppm. Attached is the regulatory page from the UDOGM environmental handbook.
>
> Sam LaRue
> Staff Environmental Scientist
> (435) 630-4748 cell
>
> From: Heather Otterstetter [mailto:hotterstetter@ltenv.com]
> Sent: Tuesday, July 01, 2014 3:14 PM
> To: Heather Wilson
> Cc: slarue@ltenv.com<mailto:slarue@ltenv.com>
> Subject: RE: Pace Project 60172423, Wellington Drill Pit Sampling
>
> Thanks.
>
> _____
> From: Heather Wilson
> [Heather.Wilson@pacelabs.com<mailto:Heather.Wilson@pacelabs.com>]
> Sent: Tuesday, July 01, 2014 3:09 PM
> To: Heather Otterstetter
> Cc: slarue@ltenv.com<mailto:slarue@ltenv.com>
> Subject: Pace Project 60172423, Wellington Drill Pit Sampling Hi
> Heather-
>
> Good afternoon! Enclosed is the final report for the samples received at the lab on June 26th. I apologize that we are not able to meet the requested turn you had originally asked for. The invoice for this project will follow later as I'm in the process of making sure that the sub lab doesn't apply rush charges when they didn't meet the turn and I confirm the pricing. If you have any questions about the results, please let me know. Have a wonderful day!
>
> Heather
>
>

TABLE 1
COMPOSITE SOIL SAMPLING RESULTS
TULLY 16-9-36D
WHITING PETROLEUM CORPORATION
WELLINGTON, UTAH

SAMPLE ID	DATE	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	TPH (mg/kg)	SAR	ESP	CONDUCTIVITY (mmhos/cm)
EAST PIT COMPOSITE	6/24/2014	228	<24.3	216	444	**54.9**	**44.4%**	**137**
EXCAVATED COMPOSITE	6/24/2014	69.0	<10.8	30.2	99.2	**48.1**	**41.1%**	**17.5**
PRE-STORAGE COMPOSITE	6/24/2014	19.6	<10.8	26.9	46.5	**58.5**	**46.0%**	**24.9**
WEST PIT COMPOSITE	6/24/2014	197	<27.8	126	323	**244**	**78.2%**	**>250**
UDOGM Cleanup Levels					**10,000**	**12**	**15%**	**4**

Notes:

< = analytical results is less than the reporting limit (non-detect)
% = percent
Bold = Analytical results exceeded the UDOGM cleanup level
ESP = exchangeable sodium percentage
mg/kg = milligrams per kilogram.
mmhos/cm = millimhos per centimeter
SAR = soil adsorption ratio
TPH-DRO = total petroleum hydrocarbons diesel range organics
TPH-GRO = total petroleum hydrocarbons gasoline range organics
TPH-ORO = total petroleum hydrocarbons oil range organics
UDOGM = Utah Division of Oil, Gas, and Mining

EDGE OF SITE FROM SOIL STOCK
ED FOR PROD. PIT. SOIL COLLECTED
0-0.5' & PLACED IN ZIPLOC
ING. CONTENTS MIXED &
3x4OZ GLASS JARS. JARS PLACED
Y ON ICE.

OMPOSITE: 3 POINT COMPOSITE
EASTERN EDGE OF SITE WHERE
NTENTS WILL BE STORED. SOIL
BETWEEN 0-0.5' & PLACED IN
FOR MIXING. CONTENTS MIXED &
3x4OZ GLASS JARS. JARS PLACED
ELY ON ICE.

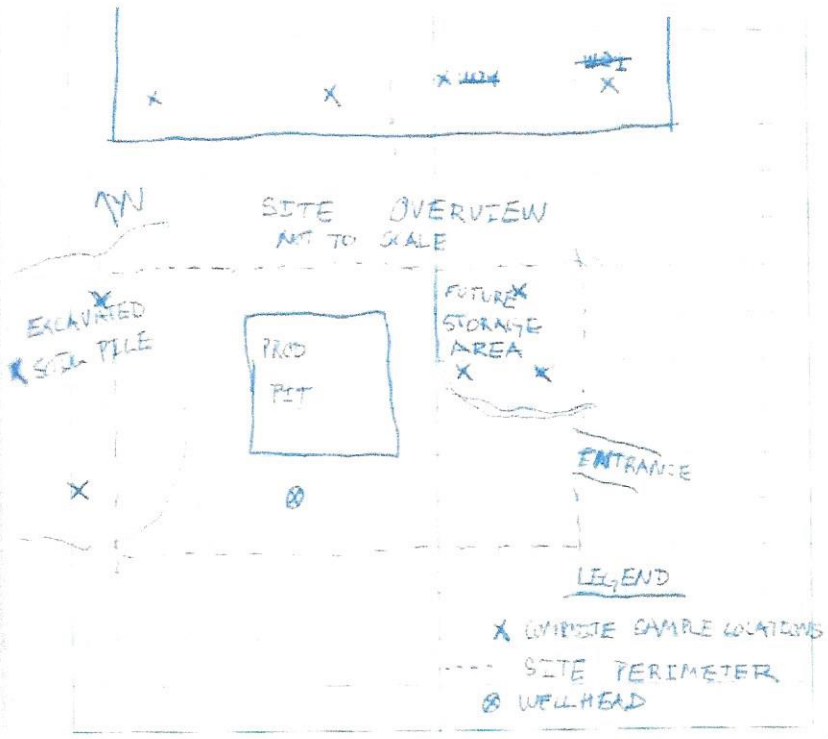
IN WESTERN QUADRANT. SOIL COLLECTED
AT A DEPTH OF APPROXIMATELY 0.5-1'
IN ZIPLOC BAG. CONTENTS MIXED
PLACED IN 3x4OZ GLASS JARS. JARS
PLACED IMMEDIATELY ON ICE.

1325 OFF SITE

6/24/14

	SAMPLE TIME
SITE	1110
OSITE	1126
MPOSITE	1141
COMPOSITE	1250

W CONSTR. CONTACT LEAVE SITE
CURE TRACK-HOE OR PLANES
WEST END OF PROD. PIT. UNABLE
SAMPLE DUE TO SOFTNESS OF SOIL
> OF PIT. COLLECT OTHER SAMPLES
URN.



Scott Swain

From: Mark Jones <markjones@utah.gov>
Sent: Thursday, July 31, 2014 12:55 AM
To: Scott Swain
Subject: Tully reserve pit closure

Scott,

I've reviewed the sample results of the drill cuttings as well as the background samples that we have taken. The cutting samples are beyond our threshold limits as shown in the lab results. However they are not as far off as one might conclude based on some of the data. I've sought the council of a coworker that has more experience and is well educated on pit closures and particularly well educated on salt based contaminants. He too has been looking at the data with me as you have provided it to me. We feel like the environmental risk associated with the Tully location is very low. Both at the surface as well in the subsurface and deeper in the formation. The risks are small, both short term and long term, of these drill cuttings ever creating an environmental threat to anyone or anything. The salts of these cuttings if buried on site will leach very slowly and the will not migrate very far over a very long period of time. The threat of these salts being pulled back to the surface is small due to the local environment being a low precipitation and high evapo-transpiration site. This coupled with the soil characteristics of the Mancos clay being very "tight" doesn't allow moisture to penetrate very deeply. Water making it's way from the surface to the salts of the cuttings and then returning back to the surface thus pulling the salts to the surface is extremely low. The reality of the situation is that dealing with these salt loaded cuttings in this situation and environmental parameters will in fact be more effect than disposal at a waste facility where we then compound our waste problems and ultimate clean ups and environmental hazards by increased volumes and concentrating the pollutant. Concentrated amounts of wastes are always more dangerous to the enviroment that if the waste were kept small, contained, and dealt with on a case by case situation. Not all wastes can be looked at this way and not all situations will allow for a safe on site disposal. However, I feel that this site and case is perfect for on site disposal of these salt based cuttings.

The cuttings may be replaced into the reserve pit on this location under the following guidelines:

1) back fill the pit with the cuttings in layers nor more than 2 feet think.

2) compact each layer with the dozer or other suitable mechanical means.

3) the final 2 foot layer should be native pit spoils material and again compacted in place mechanically.

4) if there are any drill cuttings that do not fit back in this pit, consult with Mark Jones of UDOGM for options for remaining cuttings.

5) Re-test the soil of the well pad surface in several locations of the entire area that was used to stock pile and dry the drill cuttings. To assure that all of the high salt material has been disposed of and not left on the location surface. These samples should be surface samples only. The cuttings have not had even close to enough time to leach any deeper into the surface soils.

6) remove from the site and dispose of at the landfill, all of the synthetic pit liner and any other trash type waste.

7) Notify Mark Jones when back filling has begun and upon completion to allow for spot inspection of the process and progress.

Thank you,
Mark Jones

--
Mark L. Jones
Division of Oil, Gas and Mining
office: 435-613-3735
cell: 435-820-8504

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-52222

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL

8. WELL NAME and NUMBER: Tully 16-9-36D

2. NAME OF OPERATOR: WHITING OIL & GAS CORPORATION

9. API NUMBER: 43015500030000

3. ADDRESS OF OPERATOR: 1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER: 303 390-4095 Ext

9. FIELD and POOL or WILDCAT: WILDCAT

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0860 FNL 0856 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 36 Township: 16.0S Range: 09.0E Meridian: S

COUNTY: EMERY

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 4/30/2015	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	✓ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Per landowner request, the Tully 16-9-36D will be reclaimed in the Spring 2015, in the following manner: 1. Cattle guard and gates will remain in place 2. The gravel road to the well site will stay as is, and culverts left in place. 3. The well site will be returned to the natural slope, with natural top soil. 4. No rock will be hauled in. 5. Well site and sides of road that have been damaged will be reseeded with Russian Wildrye and Forage Kochia. Please see attached landowner request. The operations supervisor on this well is Scott Swain, reachable at (435) 781-1804 office, (435) 299-0414 cell, or scott.swain@whiting.com.

Accepted by the Utah Division of Oil, Gas and Mining

Date: January 30, 2015

By: Dan Jarvis

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Cara Mezydlo	303 876-7091	Engineering Technician
SIGNATURE N/A		**DATE** 1/9/2015

RECEIVED: Jan. 09, 2015

To whom it may concern the original lease between Whitening Oil Company and pervious land owners Mark and Angie Austin was put in place May of 2012. In July of 2014 Robert and Josie Ramstetter purchased the land.

Poison Springs #16-9-36D, Lands NW/4NW/4, Section 36, Township 16 South, Range 9 East, Emery County, Utah.

For reclaiming the oil well site owners would like as followed:

Cattle guard and gates stay the same.

Gravel road going to well sight stays as is and culverts left in place.

The well site returned to the natural slope with natural top soil.

No rocks hauled in for (natural placement).

Receding well site and sides of road that have been damaged.

Seed Type: Russian Wild Rye and Forage Koshia.

12-22-2014

Robert Ramstetter

12-22-2014

Josie Ramstetter

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-52222

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL

8. WELL NAME and NUMBER: Tully 16-9-36D

2. NAME OF OPERATOR: WHITING OIL & GAS CORPORATION

9. API NUMBER: 43015500030000

3. ADDRESS OF OPERATOR: 1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER: 303 390-4095 Ext

9. FIELD and POOL or WILDCAT: WILDCAT

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0860 FNL 0856 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 36 Township: 16.0S Range: 09.0E Meridian: S

COUNTY: EMERY

STATE: UTAH

11.

CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
✓ SUBSEQUENT REPORT Date of Work Completion: 9/29/2015	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	✓ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Whiting Oil and Gas Corporation respectfully submits the completed reclamation agreement on the Tully 16-9-36D well. Based on the signed agreement, the land owner is satisfied with the reclamation performed, and there is no further action to be done.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
April 05, 2016

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Cara Mezydlo	303 876-7091	Engineering Technician
SIGNATURE		**DATE**
N/A		1/29/2016

RECEIVED: Jan. 29, 2016

WHITING

September 3, 2015

Robert Ramstetter
(Include address)

RE: Poison Springs #16-9-36D Reclamation Agreement between Whiting Oil and Gas Corporation and the Owners of the following property.

Township 16 South – Range 9 East
Section 36: NW ¼ NW ¼

The following agreement has been entered into by Whiting Oil and Gas Corporation (Operator) and Robert Ramstetter (Owner) as a settlement for reclamation of the Poison Springs #16-9-36D Well Site. Owner requested in a letter dated December 22, 2014 to the Operator that the cattle guards, gates, gravel road, and culverts remain in place and not be reclaimed. Owner requested that the well site be reclaimed back to its original natural slope or as reasonably possible with the natural topsoil and that no rocks are to be hauled in for placement. Owner also requested that all disturbed areas be reseeded with Russian Wild Rye and Forage Koshia. The execution of this document serves as evidence that the Operator has met the above terms as requested by the Owner and that no further action is necessary.

Owners of said property are:

Robert Ramstetter

This agreement was signed on the 29th day of Sept. 2015.

If you have any questions or comments, please feel free to give me a call at the following number:
Office # 435-781-1804
Cell # 435-299-0414

Scott Swain
Operations Supervisor
Operations- Denver
scott.swain@whiting.com

Scamp Excavation, Inc
PO Box 50, Wellington, UT 84542
Phone: (435) 636-8101 Fax: (435) 637-5696
E-Mail: SEOPLLC@EMERYTELCOM.NET

"24 hours a day, 7 days a week"

September 29, 2015

Robert Ramstetter

Re: Whiting Petroleum Corporation
Tully Well: Fencing, Materials, and Seed

Mr. Ramstetter is in receipt of the fencing and materials as attested to by his signature below.

Scamp Excavation has the seed mix, will cross rip the field, and will seed when Mr. Ramstetter agrees on the date.

Robert Ramstetter